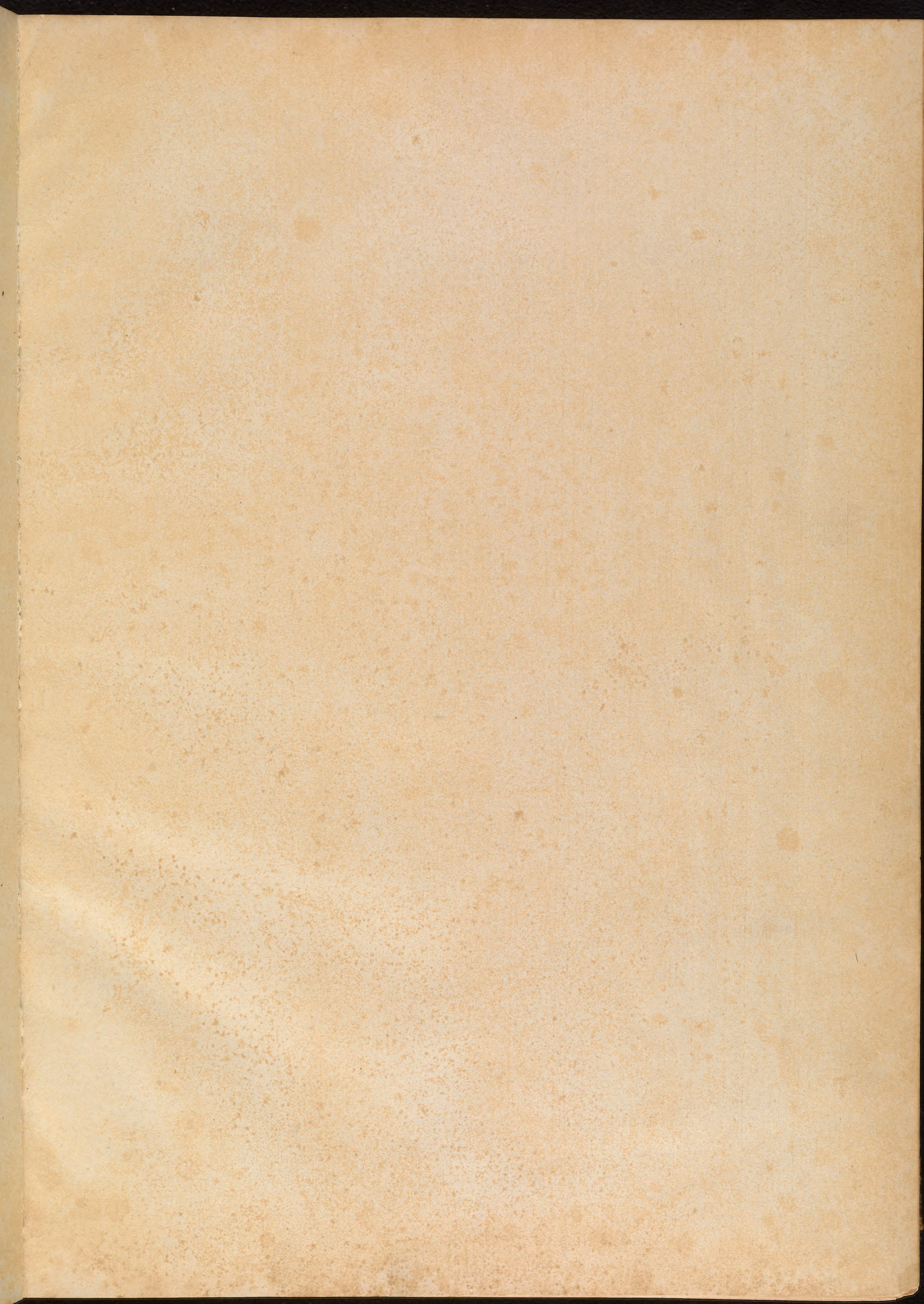


WESTERMAN
NEW-YORK
11 BROADWAY





alc. - f.p.n.



EXOTIC ORNITHOLOGY,

CONTAINING

FIGURES AND DESCRIPTIONS OF NEW OR RARE SPECIES

OF

AMERICAN BIRDS,

BY

PHILIP LUTLEY SCLATER, M.A., PH.D., F.R.S.,

SECRETARY TO THE ZOOLOGICAL SOCIETY OF LONDON,

LATE FELLOW OF CORPUS CHRISTI COLLEGE, OXFORD;

AND

OSBERT SALVIN, M.A., F.L.S., F.Z.S.

LONDON:

BERNARD QUARITCH, 15 PICCADILLY.

1869.

PHOTOGRAPHY

1857

THE PHOTOGRAPHIC ARTIST

BY J. M. BROWN

THE PHOTOGRAPHIC ARTIST

THE PHOTOGRAPHIC ARTIST

1857

THE PHOTOGRAPHIC ARTIST

1857

5 PL
679
541
1869
SCHHRB
52

P R E F A C E.

THE object originally contemplated by the authors of the present work was to continue the well-known series of illustrations contained in the "Planches Enluminées" of Buffon and Daubenton, the "Planches Coloriées" of Temminck, and the "Iconographie Ornithologique" of Des Murs.

The first-named book furnishes us with representations of about 1500 species of birds, the second with those of about 750, and the last with those of 70 species. Upwards of 8000 species of this class of animals being now known to science, it will be apparent that there was ample room for a succession of similar works. It is true that there have been published of late years a large number of magnificently illustrated volumes relating to various branches of ornithology. But these have been chiefly in the nature of Faunas—devoted to the birds of one particular country, or Monographs—confined to the members of a single genus or Family. The present work was originally intended to be of a completely general nature—to illustrate the many new and rare ornithic forms that have been recently discovered in nearly every part of the world's surface. As it progressed, however, the authors found that it would be more convenient to restrict it to the birds of the Neotropical Region—that is America south of the United States. No other part of the world can vie with Tropical America in the richness of its Avifauna; and nowhere else have so many brilliant discoveries been recently made as in its various districts. Moreover, one of the authors is so fortunate as to have been the original explorer of the ornithology of a very interesting portion of this Region, and has thus been enabled to append to the accounts of the species met with within this area notes on their habits and local distribution.

The present work, therefore, which has been issued in numbers since October 1st, 1866, contains in its now complete form a series of one hundred coloured illustrations of Central and South American birds. The number of species figured is 104, belonging to 51 different genera. To the final illustration of each genus has been appended in nearly every case a systematic list of all the other American species of the same genus

known to the authors, which, it is hoped, will greatly increase the value of the volume as a work of reference.

In conclusion, the authors have to record their best thanks to Dr. William Peters, Director of the Royal Zoological Museum of Berlin, and to the authorities of the Jardin des Plantes of Paris, and of the Norwich and Norfolk Museum, who have most liberally allowed some of their rarest specimens to be removed to London for the use of the present work, as well as to other kind friends who, as will be seen by references in the following pages, have favoured them with the loan of specimens and with useful information upon different points.

P. L. SCLATER.

O. SALVIN.

LONDON, *November*, 1869.

CONTENTS.

PLATE.	PAGE	PLATE.	PAGE
I. LIPAUGUS UNIRUFUS . . .	1	XXXIX. GEOTRYGON ALBIFACIES* . .	77
II. ——— SUBALARIS . . .	3	XL. ——— BOURCIERI . . .	79
III. ——— RUFESCENS . . .	5	XLI. Fig. 1. CHLOROPHONIA FRONTALIS .	81
IV. FURNARIUS TORRIDUS . . .	7	„ Fig. 2. ——— LONGIPENNIS .	82
V. XIPHOLENA ATROPURPUREA . . .	9	XLII. CHLOROPHONIA OCCIPITALIS . .	83
VI. PTILOGONYS CAUDATUS . . .	11	XLIII. MELANOTIS HYPOLEUCUS . . .	85
VII. VIREOLANIUS MELITOPHRYS . . .	13	XLIV. TINAMUS ROBUSTUS . . .	87
VIII. ——— PULCHELLUS . . .	15	XLV. CRYPTURUS SALLÆI . . .	89
IX. PHLOGOPSIS MACLEANNANI . . .	17	XLVI. ——— BOUCARDI . . .	91
X. CINCLOCERTHIA RUFICAUDA . . .	19	XLVII. ——— MESERYTHRUS . . .	93
XI. ——— MACRORHYNCHA . . .	21	XLVIII. TIGRISOMA CABANISI . . .	95
XII. ——— GUTTURALIS . . .	23	XLIX. LEUCOPTERNIS PALLIATA . . .	97
XIII. ACCIPITER VENTRALIS . . .	25	L. SCOPS FLAMMEOLA . . .	99
XIV. ——— CHIONOGASTER . . .	27	LI. ——— BARBARUS . . .	101
XV. RUPICOLA SANGUINOLENTA . . .	29	LII. CHÆTURA SEMICOLLARIS . . .	103
XVI. PORZANA RUBRA . . .	31	LIII. PORZANA HAUXWELLI . . .	105
XVII. ACCIPITER ERYTHROCNEMIS . . .	33	LIV. ——— MELANOPHÆA . . .	107
XVIII. ——— CASTANILIUS . . .	35	LV. ——— ALBIGULARIS . . .	109
XIX. CICHLOPSIS LEUCOGONYS . . .	37	LVI. ——— LEUCOPYRRHA . . .	111
XX. NYCTIBIUS BRACTEATUS . . .	39	LVII. FULICA ARDESIACA . . .	113
XXI. CYPHORHINUS LAWRENCII . . .	41	LVIII. ——— ARMILLATA . . .	115
XXII. ——— PHŒOCEPHALUS . . .	43	LIX. ——— LEUCOPYGA . . .	117
XXIII. Fig. 1. TROGLODYTES SOLSTITIALIS .	45	LX. ——— LEUCOPTERA . . .	119
„ Fig. 2. ——— BRUNNEICOLLIS .	46	LXI. LEUCOPTERNIS SEMIPLUMBEA . .	121
XXIV. ICTERUS PUSTULATUS . . .	47	LXII. GEOTRYGON CHIRIQUENSIS . . .	123
XXV. MYIADESTES OBSCURUS . . .	49	LXIII. CARDINALIS PHŒNICEUS . . .	125
XXVI. ——— UNICOLOR . . .	51	LXIV. Fig. 1. PYRGISOMA RUBRICATUM .	127
XXVII. ——— RALLOIDES . . .	53	„ Fig. 2. ——— LEUCOTE . . .	128
XXVIII. ——— ELISABETHÆ . . .	55	LXV. Fig. 1. ——— CABANISI . . .	129
XXIX. HYLACTES CASTANEUS . . .	57	„ Fig. 2. ——— KIENERI . . .	130
XXX. ŒDICNEMUS SUPERCILIARIS . . .	59	LXVI. OXYRHAMPHUS FRATER . . .	131
XXXI. LANIO AURANTIUS . . .	61	LXVII. THYRORHINA SCHOMBURGKI . .	133
XXXII. ——— LEUCOTHORAX . . .	63	LXVIII. CHLOROPHONIA CALOPHRYS . .	135
XXXIII. TACHYPHONUS PHŒNICEUS . . .	65	LXIX. ACCIPITER BICOLOR . . .	137
XXXIV. ——— DELATRII . . .	67	LXX. TURDUS GIGAS . . .	139
XXXV. XIPHOCOLAPTES EMIGRANS . . .	69	LXXI. ——— ALBICOLLIS . . .	141
XXXVI. ——— MAJOR . . .	71	LXXII. ——— LEUCOMELAS . . .	143
XXXVII. ACCIPITER CHILENSIS . . .	73	LXXIII. ——— CROTOPEZUS . . .	145
XXXVIII. LEUCOPTERNIS SUPERCILIARIS . .	75	LXXIV. ——— ALBIVENTRIS . . .	147

* Named on the Plate erroneously *Geotrygon chiriquensis*. See Plate lxii. p. 123.

PLATE	PAGE	PLATE.	PAGE
LXXV. TURDUS PHÆOPYGUS . . .	149	LXXXIX. ASTURINA PUCHERANI . . .	177
LXXVI. ——— GYMNOPTHALMUS . . .	151	XC. ——— PLAGIATA . . .	179
LXXVII. BUCCO STRIOLATUS . . .	153	XCI. BOTTAURUS PINNATUS . . .	181
LXXVIII. PORZANA CASTANEICEPS . . .	155	XCII. TIGRISOMA FASCIATUM . . .	183
LXXIX. ATTAGIS CHIMBORAZENSIS . . .	157	XCIII. THRIPADECTES FLAMMULATUS . . .	185
LXXX. FORMICIVORA STRIGILATA . . .	159	XCIV. ICTERUS ABEILLEI . . .	187
LXXXI. CONURUS HOFFMANNI . . .	161	XCV. CENTROPELMA MICROPTERUM . . .	189
LXXXII. RALLUS ANTARCTICUS . . .	163	XCVI. CENTRITES OREAS . . .	191
LXXXIII. ——— SEMIPLUMBEUS . . .	165	XCVII. GALLINAGO IMPERIALIS . . .	193
LXXXIV. PITYLUS HUMERALIS . . .	167	XCVIII. ——— NOBILIS . . .	195
LXXXV. ACCIPITER GUTTATUS . . .	169	XCIX. QUERQUEDULA PUNA . . .	197
LXXXVI. AMPELION ARCUATUS . . .	171	C. MERGANETTA TURNERI . . .	199
LXXXVII. ASTURINA NATTERERI . . .	173	INDEX . . .	201
LXXXVIII. ——— RUFICAUDA . . .	175		

LIST OF ERRATA.

Page	1, line 15, for <i>McCleannan</i> read <i>McLeannan</i>
"	1, " 23, " <i>McCleannan</i> " <i>McLeannan</i>
"	1, " 33, " <i>McCleannan</i> " <i>McLeannan</i>
"	5, " 15, " <i>McCleannan</i> " <i>McLeannan</i>
"	5, " 18, " <i>McCleannan</i> " <i>McLeannan</i>
"	5, " 25, " <i>McCleannan</i> " <i>McLeannan</i>
"	15, " 11, " <i>McCleannan</i> " <i>McLeannan</i>
"	15, " 34, " <i>McCleannan</i> " <i>McLeannan</i>
"	16, " 1, " <i>McCleannan</i> " <i>McLeannan</i>
"	45, " 11, " <i>Pastazza</i> read <i>Pastaza</i>
"	55, " 31, " <i>Donna del Gati</i> read <i>Doña del Gato</i>
Plate	xl. for <i>SALLCEI</i> read <i>SALLÆI</i>
"	lxiv. " <i>RyBRICATUM</i> read <i>RUBRICATUM</i>
Page	137, line 20, for <i>McCleannan</i> read <i>McLeannan</i>
"	149, " 4, " <i>Plæopygus</i> " <i>Phæopygus</i>
"	155, " 22, " <i>Pozana</i> " <i>Porzana</i>
"	171, " 13, " <i>Lafresnay</i> " <i>Lafresnaye</i>
"	172, " 13, " <i>notata</i> " <i>notato</i>
"	176, " 3, " <i>McCleannan</i> " <i>McLeannan</i>



M. & N. Hanhart. imp.

LIPAUGUS UNIRUFUS.

J. Sprat lith.

PLATE I.

LIPAUGUS UNIRUFUS.

(RED-BROWN MOURNER).

<i>Lipaugus unirufus</i>	.	.	.	Sclater, P.Z.S. 1859, p. 385.
"	"	.	.	Sclater, P.Z.S. 1861, p. 211.
"	"	.	.	Scl. et Salv. Ibis, 1860, p. 36.
"	"	.	.	Sclater, Cat. A. B. p. 244.
"	"	.	.	Lawrence, Ann. Lyc. New York, vii. p. 330.
"	"	.	.	Scl. et Salv. P.Z.S. 1864, p. 361.
"	"	.	.	Cassin, Proc. Acad. Phil. 1860, p. 143.

L. fuscescens-rufus unicolor, subtus paulo dilutior, præcipuè in gutture et ventre medio : remigibus alarum intus obscurioribus : subalaribus clarè cinnamomeo-rufis : rostro pallide corneo, mandibulæ inferioris basi albicante : pedibus obscurè plumbeis : long. totâ 9·75, alæ 5·4, caudæ 4·3. *Fœm.* mari similis.

Hab. in statu Oaxacensi, Mexic. merid. (*Boucard.*) : Guatemalâ, Veræ Pacis reg. sylv. (*Salvin.*) : Isthmo Panamâ (*McCleannan.*).

This fine species of *Lipaugus* was first made known to science by Mr. Sclater, who described it before the Zoological Society in November, 1859, from specimens obtained by the French Collector, Adolphe Boucard, in Oaxaca, and from Guatemalan skins received through Mr. Skinner almost simultaneously. Mr. Salvin obtained numerous examples of this bird in the forest-region near Choctum, a small Indian village of Vera Paz, situated about 1200 feet above the sea-level. Here it was common, but was not met with elsewhere in Guatemala. Nor does it seem to have occurred in other collections from the more southern portions of Central America, until we come to Panama, whence Mr. McCleannan has forwarded specimens both to this country and to America.

Southwards of the Isthmus Mr. Cassin has recorded this species as having been obtained by Mr. C. T. Wood, during the Darien expedition under Lieut. Michler, "in the dry parts of the forest at Turbo, and in the Cordilleras on the river Truando." Mr. Cassin, who was rather doubtful about the correct determination of his birds, was kind enough to send us one of these specimens, which agreed perfectly with our examples.

In Vera Paz, Mr. Salvin observed this *Lipaugus* in the interior of the forest, usually perched in among the lower branches of the larger trees. Its cry is loud and clear, whence it has derived the Indian name "*Recho.*" Its food is principally fruit, though it doubtless eats insects also. In Panama, Mr. McCleannan tells us that this species is found "in retired places in high trees," and that its irides are brown.

The figure is taken from a specimen obtained by Mr. Salvin at Choctum, Vera Paz, now in Mr. Sclater's collection.

Lipaugus unirufus is nearly of the same form as *L. cineraceus* of Cayenne and the Amazon-valley, having the two outer toes partially united at their bases, but has the wings rather differently proportioned, the third primary being longest instead of the fifth, and the primaries generally less pointed. It is also rather larger than *L. cineraceus*, and totally different in colour. It is very singular that all the three Central American representatives of this group of birds, belonging to three separate and easily distinguishable sections, should be of a general cinnamon-brown colour, while all the South American members of the genus are more or less cinereous.

OCTOBER, 1866.



J. Smith. H. & A.

M. & N. Harbort. imp.

LIPAUGUS SUBALARIS.

PLATE II.

LIPAUGUS SUBALARIS.

(YELLOW-SIDED MOURNER).

Lipaugus subalaris Selater, P.Z.S. 1861, p. 210.

L. viridi-olivaceus, dorso imo, ventre et caudâ cinerascientioribus, caudâ fere tota cinereâ; crisso albicante; pilei plumis interne nigro maculatis: gutturis et pectoris plumarum scapis conspicue flavicanti-albis: plumis axillaribus et subalaribus læte citrino-flavis: alis fusco-nigricantibus, extus dorso concoloribus: rostro et pedibus nigris: long. totâ 10·5, alæ 5·1, caudæ 4. 2, tarsi 0·9.

Hab. in Rep. Æquatoriali, ad ripas fl. Napo.

Since Mr. Selater described this curious bird from the single example in the British Museum he has obtained a second specimen of it, which has allowed us to add some additional notes to his former description, and from which the present figure is taken.

The correct place of this species in the genus *Lipaugus* appears to be near *Lipaugus unirufus* and *L. cineraceus*, and not along with *L. hypopyrrhus* and its allies, as Mr. Selater formerly supposed. The two external digits are certainly further united than in *L. cineraceus* and *L. unirufus*, but not so far as in the case of *L. hypopyrrhus* and its neighbours. In the last mentioned section also the sexes appear to be differently clothed, and there is a brightly coloured tuft on each side of the breast, which does not occur in the present form.

The wings of *L. subalaris* are rather longer and more pointed than is usual in this genus. The first primary is of the same length as the seventh, and about six tenths of an inch shorter than the second, which equals the fourth, while the third is longest.

There is no other known species liable to be confounded with the present bird, which is recognizable at first sight by its bright sulphur-yellow under-wing-coverts. It would appear to be rare in collections, the two examples above alluded to, which are both from the forest-region of the Rio Napo, being, so far as we know, the only specimens of this bird in Europe.

OCTOBER, 1866.



J. Gould lith.

M & N Hanhart imp.

LIPAUGUS RUFESCENS.

PLATE III.

LIPAUGUS RUFESCENS.

(SPECKLED MOURNER).

<i>Lipaugus rufescens</i>	.	.	.	Sclater, P.Z.S. 1857, p. 276.
"	"	.	.	Sclater, P.Z.S. 1861, p. 211.
"	"	.	.	Scl. et Salv. Ibis, 1859, p. 124.
"	"	.	.	Scl. et Salv. P.Z.S. 1864, p. 361.
"	"	.	.	Lawrence, Ann. Lyc. N.Y. vii. p. 330.

L. rufescens-brunneus, subtus clarior, uropygio et corpore subtus nigro, vittas obsoletas formante, subtilissimè transfasciatis: plumarum maculis apicalibus rotundis in pectore, ventre medio et crisso sparsis, nigris: remigibus nigricantibus, intus et extus rufo marginatis: alarum tectricibus superioribus intus fuscis, extus rufis, purpurascens nigro angustè terminatis; subalaribus rufis; fasciculo pectorali utrinque croceo: caudâ unicolore, rufescenti-brunneâ: rostro nigricante, pedibus fuscis: long. totâ 8.5, alæ 4.4, caudæ 3.6. *Fœm.* mari similis, sed maculis corporis inferioris et fasciis tectricum alarum terminalibus carens.

Hab. in Isthmo Panamensi (*McCleannan*): Chépo, prov. Panamens. (*Arcé*): Veragua (*Arcé*).

The specimen of this bird in the Derby Museum, originally described by Mr. Sclater, was said to have been obtained at Coban in Guatemala, but, as has been already stated in our notes on Mr. McCleannan's Panama collections,* we have now grave doubts as to the correctness of the locality assigned to it. Certain it is, that among the thousands of Guatemalan skins that have come under our observation, we have never seen an example of this species, nor could Mr. Salvin obtain any information as to its existence in Vera Paz. Veragua is the most northern locality we can record with certainty for this species, examples of it in the collection of Messrs. Salvin and Godman, from one of which the figure of the male is taken, having been obtained near Santiago de Veraguas in that province by Enrique Arcé, in 1865. Further south, Mr. McCleannan has collected specimens in the vicinity of Lion-hill Station on the Panama Railway, and Arcé met with the same bird during his excursion to Chépo, about 40 miles south of the town of Panama, in 1864. The figure of the female is from a specimen obtained on this occasion, which is now in Mr. Sclater's collection.

It is to Arcé that we are mainly indebted for our knowledge of the diversity of the sexes in this bird and its southern allies, which appears to have hitherto escaped observation. According to this indefatigable collector's marked specimens, it is only the male of this species which possesses the irregularly placed round black spots on the lower surface, and the narrow black purplish-shining edgings of the upper wing-coverts. The lateral pectoral tuft is likewise less developed in the female. On carefully examining the southern congeners of this bird we find indications of the existence of corresponding differences. In *L. hypopyrrhus* of Brazil the belly of the male shows a number of rufous feathers interspersed among the gray plumage, each of which bears a round terminal black spot. In what we consider to be the female of this species, the coloured feathers with their terminal spots are entirely absent. In *L. lateralis*, which Mr. G. R. Gray, as it appears to us, has incorrectly re-united to *L. hypopyrrhus*, we believe that somewhat similar differences will be found to occur, although the specimens before us do not suffice to show them very evidently.

Leaving to future observers the authentication of these observations, we subjoin to our account of this bird, a list of the ten species of the genus known to us, amended from Mr. Sclater's previously published list in the Zoological Society's "Proceedings" for 1861, (p. 210, et seq.)

* P.Z.S. 1864, p. 361.

SUB-GENUS I.—LATHRIA, Sw.

Planta glabra: sexus similes: setæ rictales debiles.

SECT. a. digiti duo externi ferè omnino liberi.

1. LIPAUGUS FUSCOCINEREUS.

Querula fuscocinerea, Lafr. Rev. Zool. 1843, p. 291.—*L. fuscocinereus*, Hartl. Rev. Zool. 1846, p. 3; Bp. Consp. p. 179; Selater, P.Z.S. 1861, p. 210.—*Lathria fuscocinerea*, Cab. Mus. Hein. ii. p. 101.

Hab. in Novâ Granadâ.

Mus. P.L.S.

2. LIPAUGUS PLUMBEUS.

Muscicapa plumbea, Licht. Doubl. p. 53; Max. Beitr. iii. p. 806.—*M. vociferans*, Max. Reise, i. p. 242, et ii. p. 118.—*L. cineraceus*, Cab. et Hein. l. c. (partim).—*Lipaugus plumbeus*, Selater, P.Z.S. 1861, p. 210, et Cat. Am. B. p. 243.

Hab. in Brasiliâ.

Mus. P.L.S.

SECT. b. digiti duo externi ad basin conjuncti.

3. LIPAUGUS CINERACEUS.

Le Cotinga cendré, Levaill. Ois. Amér. et Ind. p. 98, pl. 44.—*Ampelis cineracea*, Vieill. Nouv. Dict. viii. p. 162, et Enc. Méth. p. 761.—*Lathria cinerea*, Sw. Flycatchers, p. 78, pl. 2.—*Lipaugus cineraceus*, Cab. Orn. Not. i. p. 240, et in Schomb. Guian. iii. p. 693; Selater, P.Z.S. 1861, p. 211.—*Lathria cineracea*, Cab. et Hein. Mus. Hein. ii. p. 101.

Hab. in Cayennâ, Guian., et Valle Amazonum.

Mus. P.L.S.

4. LIPAUGUS UNIRUFUS.

Selater, P.Z.S. 1859, p. 385, et 1861, p. 210; Sclat. et Salv. Ibis, 1860, p. 36, et supra Pl. I.

Hab. in Mex. merid., Guatemalâ, Costa-ricâ et Panamâ.

Mus. P.L.S. et S. & G.

5. LIPAUGUS SUBALARIS.

Lipaugus subalaris, Selater, P.Z.S. 1861, p. 210, et supra Pl. II.

Hab. in rep. Æquator. cisandeanâ.

SUB-GENUS II.—AULIA, Bp.

Planta glabra: sexus dissimiles: digiti duo externi per majorem partem conjuncti: setæ rictales debiles.

6. LIPAUGUS HYPOPYRRHUS.

Ampelis hypopyrrha, Vieill. Nouv. Dict. viii. p. 164, et Enc. Méth. p. 762.—*Musc. sibilatrix*, Max. Beitr. iii. p. 810.—*Lipaugus hypopyrrhus*, Hartl. Rev. Zool. 1846, p. 3; Bp. Consp. p. 179; Selater, P.Z.S. 1861, p. 211.—*Lipaugus sibilatrix*, Burm. Syst. Ueb. ii. p. 422.—*Aulia hypopyrrha*, Cab. et Hein. Mus. Hein. ii. p. 101.—*Laniocera sanguinaria*, Less. Rev. Zool. 180, p. 353 (?).

Hab. in Brasiliæ reg. sylv. Merid. Or.

Mus. P.L.S.

7. LIPAUGUS LATERALIS.

Lipaugus lateralis, Gray & Mitch. Gen. B. I. Pl. 60.

Hab. in Brasil Septentr. et valle Amazonum.

Mus. P.L.S.

8. LIPAUGUS RUFESCENS.

Lipaugus rufescens, Selater, P.Z.S. 1857, p. 296, et 1861, p. 211; Scl. et Salv. P.Z.S. 1864, p. 361, et supra Pl. III.

Hab. in Veraguâ et Isth. Panamâ.

Mus. P.L.S. et S. & G.

SUBGENUS III.—LIPAUGUS, Boié.

Planta aspera: sexus similes: pedes debiles: digiti duo externi fere omnino divisi: setæ rictales fortes et elongatæ.

9. LIPAUGUS SIMPLEX.

Muscicapa simplex, Licht. Doubl. p. 53.—*Tyrannus calcaratus*, Sw. Q. Journ. of Sc. xx. p. 271; Jard. et Selb. Ill. Orn. i. pl. 37.—*Muscicapa cinerascens*, Spix, Av. Bras. ii. p. 16, pl. 21.—*Muscicapa rustica*, Max. Beitr. iii. p. 866.—*Myiarchus rusticus*, Burm. Syst. Ueb. ii. p. 470.—*Lipaugus simplex*, Hartl. Rev. Zool. 1846, p. 3; Bp. Consp. p. 179; Cab. in Schomb. Guian. iii. p. 130; Burm. Syst. Ueb. ii. p. 422; Scl. P.Z.S. 1861, p. 211; Cab. et Hein. Mus. Hein. ii. p. 100; Scl. Cat. Am. B. p. 244.

Hab. in Brasiliâ.

Mus. P.L.S.

10. LIPAUGUS HOLERYTHRUS.

Sclat. et Salv. P.Z.S. 1860, p. 300, 1864, p. 361, et Ibis, 1860, p. 400; Selater, P.Z.S. 1861, p. 221; Lawr. Ann. Lyc. N. Y. vii. p. 330.

Hab. in Guatemalâ et Isth. Panamâ.

Mus. P.L.S. et S. & G.

OCTOBER, 1866.



M & N Harcourt imp.

J Smit del.

FURNARIUS TORRIDUS.

PLATE IV.

FURNARIUS TORRIDUS.

(CHESTNUT OVEN-BIRD).

Furnarius torridus ScL. et. Salv. P.Z.S. 1866, p. 183.

Rubiginosus, alis caudâque paulo saturatioribus, primariis fusco-nigricantibus, omnium (nisi extimi) basibus in pogonio interiore pallide cinnamomeis: pileo toto et capitis lateribus sordide brunneis, loris et superciliis indistincte albidis: subtus pallide rufus, gulâ, ventre medio et subalaribus pure albis: rostro rufo, basi albicante; pedibus pallide carneis: long. totâ 7.0, alæ 3.7, caudæ 2.2, tarsi 1.2; rostri a rictu lin. dir. 1.1.

Hab. in ripis fl. Ucayali sup. et inf.

This Oven-bird was one of the earliest discoveries of Mr. Edward Bartlett, a young and enterprising collector now engaged in exploring the natural productions of Eastern Peru, and was recently described by the authors of the present work in their joint paper on the birds collected by him on the river Ucayali.

Mr. Bartlett has hitherto forwarded but two examples of this bird, from one of which, now in Mr. Sclater's collection, the present figure is taken. But the species is so well marked by its dark rusty-rufous back and clearly defined white throat, as to leave little doubt that it is distinct from all previously described members of the genus.

The genus *Furnarius* embraces seven or eight species all peculiar to the southern portion of the American continent and remarkable for the extraordinary nests which they build. That of *Furnarius rufus*, of Paraguay and the Campos of Brazil, is very large for the size of the bird, and built wholly of mud, domed over, and with an entrance at the side, so as to resemble a brick-oven in appearance. It is often placed near or even in the houses of the natives, who have many curious stories about this familiar bird, as narrated by Azara, Burmeister, and other authorities upon American Ornithology.

We are acquainted with the following species of this genus.

1. FURNARIUS RUFUS.

Merops rufus, Gm. S. N. i. p. 465.—*Turdus badius*, Licht. Doubl. p. 40.—*Figulus albogularis*, Spix, Av. Bras. i. p. 76, pl. 78.—*Opetiorhynchus ruficaudus*, Max. Beitr. iii. p. 671.—*Furnarius rufus*, D'Orb. Voy. Ois. p. 250; Burm. Syst. Ueb. iii. p. 3; Cab. et Hein. Mus. Hein. ii. p. 23.

Hab. in Brasil. merid. interiore et Paraguay.

Mus. P.L.S.

2. FURNARIUS FIGULUS.

Turdus figulus, Licht. Doubl. p. 40.—*Opetiorhynchus rufus*, Max. Beitr. iii. p. 667.—*Furnarius figulus*, Bp. Consp. p. 214; Burm. Syst. Ueb. iii. p. 4; Cab. et Hein. Mus. Hein. ii. p. 23.—*Furnarius melanotis*, Sw. An. in Menag. p. 324.

Hab. in Brasil. Mer. Or. provinc. de Bahia.

Mus. P.L.S.

3. FURNARIUS LEUCOPUS.

Furnarius leucopus, Sw. An. in Men. p. 325; Cab. in Schomb. Guian. iii. p. 688; Cab. et Hein. Mus. Hein. ii. p. 23; Selater, Cat. A. B. p. 146; v. Pelzeln, Sitz. Ac. Wien, xxxiv. p. 115.

Hab. in Guianâ Brit. (*Schomb.*); Rio Branco (*Natt.*); Cuyaba, Brasil (*Natt.*).

Mus. P.L.S.

4. FURNARIUS CINNAMOMEUS.

Picolaptes cinnamomeus, Less. Rev. Zool. 1844, p. 23.—*F. longirostris*, v. Pelz. Sitz. Ac. Wien, xx. p. 150.—*F. griseiceps*, Cab. et Hein. Mus. Hein. ii. p. 23.—*F. cinnamomeus*, Selater, P.Z.S. 1860, et Cat. Am. B. p. 147.

Hab. in Rep. Æquatoriali, regione littorali (*Fraser*).

Mus. P.L.S.

5. FURNARIUS MINOR.

Furnarius minor, v. Pelz. Sitz. Ac. Wien, xxxi. p. 321, et xxxiv. p. 115; Selater et Salv. P.Z.S. 1866, p. 183.

Hab. in Amazonia sup. fl. Madeira (*Natt.*) fl. Ucayali (*Bartlett*).

Mus. P.L.S.

6. FURNARIUS TORRIDUS, suprâ Pl. IV.

Hab. in Amazonia sup. fl. Ucayali (*Bartlett*).

Mus. P.L.S.

One specimen belonging to a seventh species, probably undescribed, is in Mr. Selater's collection. It is from Santa Martha, and is apparently intermediate between *F. leucopus* and *F. cinnamomeus*.

OCTOBER, 1866.



McN. Hartshorn.

J. Smith lith.

XIPHOLENA ATROPURPUREA.

PLATE V.

XIPHOLENA ATROPURPUREA.

(BRAZILIAN POMPADOUR-COTINGA).

<i>Ampelis atropurpurea</i>	.	.	.	Max. Reis. n. Bras. i. pp. 262. (1820.)
<i>Ampelis purpurea</i>	.	.	.	Licht. Doubl. p. 57. (1823.)
" "	.	.	.	Max. Beitr. iii. p. 397.
" "	.	.	.	Burm. Syst. Ueb. ii. p. 428.
<i>Cotinga purpurea</i>	.	.	.	Gray, Gen. of Birds, i. p. 279.
<i>Xipholena purpurea</i>	.	.	.	Cab. Orn. Not. i. p. 233.
" "	.	.	.	Cab. et Hein. Mus. Hein. ii. p. 106.
" <i>atropurpurea</i>	.	.	.	Bp. Consp. p. 176.
" "	.	.	.	Sclater, Cat. Am. B. p. 257.

Saturate vinaceo-purpurea, remigibus niveis, primariorum apicibus nigris: rostro corneo, pedibus nigris; long. totâ 7.5, alæ 4.3, caudæ 2.5. *Fœm.* Fuliginoso-cineracea, uropygii plumis albo marginatis: alis nigricantibus, secundariis et tectricibus albo limbatis: subtus dilutior, ventre albicantiore, crisso toto albo.

Hab. in Brasil. Or. reg. sylvaticâ.

The well-known Pompadour Cotinga of Cayenne is represented in South-eastern Brazil by the present bird, which although not quite its equal in brilliancy of colour, is nevertheless one of the handsomest of the gorgeous group to which it belongs. The veteran ornithologist, Prince Max of Neu-Wied, was the original discoverer of this species, having met with it during his travels in Brazil in the year 1816, in the neighbourhood of Morro d'Arara, in the wooded coast-region north of Rio de Janeiro. In the first volume of his "Reise nach Brasilien," published in 1820, Prince Max gave the specific name *atropurpurea* to this species. In his subsequently published "Beitrage" he relinquished this term in favour of Lichtenstein's *purpurea*, which, however, was not published until 1823, so that there can be no doubt that in accordance with the rules of priority the former name should be employed. Burmeister obtained one specimen of this species near Novo Fribourgo, in the wooded district of S. E. Brazil, and it is not unfrequently met with in collections of birds from Rio.

Like the other species of the group, the Brazilian Pompadour is probably a pure fruit-eater. Prince Max tells us that the digestive organs of the specimens obtained by his hunters contained only red seeds, probably of the Urucú (*Bixa orellana*), and cherry-like fruits, the abundant use of which seemed to have stained the intestines. Its voice is described as being like the mewling of a cat.

The genus *Xipholena* (containing the Pompadour Cotingas) embraces three species, including the present; namely:—

1. *X. pompadora* (Linn.): Sclater, Cat. A. B. p. 226, from British Guiana and Cayenne, extending inwards to Guia on the Rio Negro, where specimens were obtained by Mr. Wallace.

2. *X. lamellipennis* (Lafr.): Sclater, Cat. A. B. p. 226, from the coast of North-eastern Brazil, apparently intermediate in its range between the two other species. A specimen of this bird, in the collection of Messrs. Salvin and Godman, was obtained by Natterer near Para, and Mr. Wallace also collected examples in the vicinity of the same city. Prof. Burmeister indicates "Columbia" as its habitat, without giving any authority for the same, and is no doubt mistaken on this point.

3. *X. atropurpurea*, from the wood-region of South-eastern Brazil.

Our figures of the present bird are taken from specimens in Mr. Sclater's collection.

OCTOBER, 1866.



J. Smith del.

M. & H. Harp. imp.

PTILOGONYS CAUDATA.

PLATE VI.

PTILOGONYS CAUDATUS.

(LONG-TAILED PTILOGONE).

Ptilogonys caudatus Cabanis, Jour. f. Orn. 1860, p. 402.
 " " Baird, Rev. Am. Birds, i. p. 413.

♂. Cinereus, collo undique cum cristâ et gulâ pallidè flavicantibus; annulo oculari aureo; pileo summo pallidè cinereo; alis nitenti-nigris, tectricibus extus cinerascensibus: caudæ rectricibus lateralibus graduatis, harum intermediis elongatis, omnibus nitenti-nigris, quatuor utrinque externis maculâ alba in pogonio interiore donatis: hypochondriis olivascenscenti-flavis, crisso aureo: rostro et pedibus nigris: long. totâ 9.0, alæ 3.8, caudæ rectr. ext. 3.6, med. 5.2. *Flem.* Olivascenscenti-cinerea ferè unicolor, flavido mixta; pileo summo pure cinereo; annulo oculari aureo: alis caudâque sicut in mari, sed obscurioribus: caudâ minùs elongata.

Hab. in Costa-ricâ, regione elevatâ: Rancho Redondo (*Carmiol*); Volcan de Cartago (*Arcé*).

For many years the only recognized species of this form was *P. cinereus*, of Swainson, described by that author in his Synopsis of the birds of Mexico, published in the year 1827, and subsequently figured in his "Zoological Illustrations." This bird, which is very well known in collections, inhabits the uplands of Mexico and Guatemala. The merit of the discovery of a second species in the highlands of Costa Rica is due to Dr. von Frantzius; its scientific appellation having been bestowed upon it by Dr. Cabanis in his memoir on the birds of Costa Rica above referred to, which was mainly drawn up from specimens transmitted to Berlin by the former naturalist.

The two species forming the sole members of the genus *Ptilogonys*, though evidently closely allied, are easily recognizable by very trenchant characters. They must nevertheless be considered as representing one another in the countries to which they belong, and as such of great interest with reference to the geographical distribution of birds in Central America. Similar instances of representative species in these two highland districts occur: for instance, the Costa-Rican *Chlorophonia calophrys* represents the Mexican *C. occipitalis*; *Diglossa plumbea* replaces *D. baritula*, and *Chlorænas albilinea*, *C. fasciata*. These two districts though forming portions of continuous land are in fact islands of cold climate in a sea of heat; and we find instances of zoological dissimilarity precisely analogous to what occurs in geographical islands surrounded by sea. The difference of temperature between the highlands and lowlands forms in such cases as complete a physical barrier as the ocean itself.

We have no precise account of the habits of the Long-tailed Ptilogone, but they are doubtless very similar to those of its northern ally, *Ptilogonys cinereus*, which is the only other known species of the genus, and from which it is at once distinguishable by its elongated tail.*

* For the full synonymy and description of these two species, see Prof. Baird's "Review of American Birds," i. p. 412, et seq.

Mr. Salvin has frequently met with *P. cinereus* in the highland districts of Guatemala, where it is usually found in the zone of evergreen oaks, at an elevation of from 4500 to 7000 feet above the sea level. At Dueñas in Guatemala, these birds assemble in some numbers during the rainy season, to feed on the fruit of a species of *Ficus*. They also devour insects, seizing them in the air in the manner of Flycatchers, as do also their allies the Waxwings (*Ampelis*).

The accompanying figures are taken from examples killed by Arcé on the Volcan de Cartago and now in the collection of Messrs. Salvin and Godman.

OCTOBER, 1866.



J. Smith lith.

M. & N. Harshart imp.

VIREOLANIUS MELITOPHRYS.

PLATE VII.

VIREOLANIUS MELITOPHRYS.

(HONEY-BROWED SHRIKELET).

<i>Vireolanius melitophrys</i>	.	.	.	Dubus, M.S. : Bp. Consp. p. 330.
"	"	.	.	Sclater, P.Z.S. 1857, p. 213, et 1859, p. 363.
"	"	.	.	Sclater, Cat. Am. B. p. 45.
"	"	.	.	Scl. et Salv. Ibis, 1860, p. 31.
"	"	.	.	Baird, Rev. Am. B. i. p. 396.

Suprà clare olivaceus, pileo et cervice cinereis : superciliis latis et elongatis aureis : strigâ per oculos et alterâ rictali angustiore utrinque nigris : subtùs pure albus, torque subgutturali et lateribus pectoris, ventrem versus dilutioribus, castaneis : rostro nigro, pedibus pallidè carneis : long. totâ 6·0, alæ 3·9, caudæ 2·8.

Hab. in Mexico, Orizaba (*Botteri*), Jalapa (*de Oca*) : in Guatemalâ, Volcan de Fuego (*Salvin*).

This well-marked Shrikelet is the largest, and perhaps the handsomest, of the brilliant group to which it belongs, and is somewhat different from its congeners in style of coloration, looking to the snow-white under-plumage and pectoral band. The first specimens of it brought to Europe were probably those in the Berlin Museum, upon which Lichtenstein placed the MS. name *Lanius chrysophrys*, without troubling himself to publish any description of them. The Vicomte Du Bus went a step farther, having had a careful figure made of this bird for a plate (which has never yet been issued) in his "Esquisses Ornithologiques," from a specimen in the Museum at Brussels. He also assigned to it the present appellation, under which it was first made known to science by Prince Charles Bonaparte.

Judging from the few examples met with among the numerous collections brought to Europe from Mexico of late years, this *Vireolanius* must be of rare occurrence in that country. Besides the single specimen obtained by Professor Botteri in the neighbourhood of Orizaba and that by De Oca near Jalapa, no other individuals have occurred to us from any part of the Mexican Empire. Nor does it appear to be much more numerous in the southern part of its range. Mr. Salvin only obtained three specimens of this bird during all his journeyings in Guatemala—and these all in the same locality—namely, near the ranchos of Calderas on the north side of the Volcan de Fuego. In this district in the month of September 1859, he was fortunate enough to witness a specimen of this rare species fall to his own gun. A pair of them were observed, frequenting the outer branches of the ever-green Oaks (*Quercus*), which constitute almost the only forest-tree of that zone of elevation on the Volcano—namely, of from 5,000 to 7,000 feet above the sea level—but only one was secured. Mr. Salvin's two remaining examples were likewise obtained by Indian hunters in the same neighbourhood, so that there can be little doubt that this is essentially a highland form, whereas the rest of the group are believed to be inhabitants of the lower forests.

The specimen figured is one of those obtained on the Volcan de Fuego, and is now in the collection of Messrs. Salvin and Godman.



J. Smit lith.

M. & N. Hanhart imp.

VIREOLANIUS PULCHELLUS

PLATE VIII.

VIREOLANIUS PULCHELLUS.

(BEAUTEOUS SHRIKELET).

<i>Vireolanius pulchellus</i>	.	.	.	Scl. et Salv. Ibis, 1859, p. 12.
"	"	.	.	Salvin, Ibis, 1861, p. 147.
"	"	.	.	Lawrence, Ann N. Y. Lyc. vii. p. 468.
"	"	.	.	Scl. Cat. Am. B. p. 45.
"	"	.	.	Baird, Rev. Am. B. i. p. 397.

Nitidè viridis, pileo et cervice cyaneis: subtùs flavicantiùs viridis, gulâ pure flavâ: rostro et pedibus plumbeis: long. totâ 5.5, alæ 2.9, caudæ 2.0. *Fœm.* mari similis, sed minùs clara et strigâ rictali flavicante.

Hab. in Guatemalâ, reg. sylvaticâ orientali (*Salvin*): Panamâ (*McCleannan*).

This is one of the many interesting novelties in Ornithology that Guatemala has lately divulged to us, and as in other instances was first obtained by Mr. George Ure Skinner—the enterprising pioneer of zoological and botanical discovery in that previously little known region. The authors of the present work founded their original description of this bird upon an example of this species in the British Museum, received through the agency of the last-named gentleman. Since that description was published one of them has had the pleasure of making the personal acquaintance of this ornamental bird in its native wilds. Mr. Salvin met with a single specimen of this Shrikelet when shooting Quesals at Rashké in the mountains above Lanquin in Vera Paz, as he has already recorded in the pages of “The Ibis.” In his subsequent expedition to Guatemala in company with Mr. F. Godman this species was found to be very abundant near Choctum, a small Indian village in the low wooded region of Vera Paz, about a day’s journey north of Coban. The figures represent two of the specimens obtained on this occasion, now in the collection of Messrs. Salvin and Godman.

The collectors employed at this latter locality have obtained from time to time a considerable number of skins of this bird, from which nearly all the Museums of Europe and America have been supplied with specimens.

Mr. Salvin generally found the present species roving amongst the outer branches of the forest-trees in quest of insect food, much according to the fashion of other Vireonidæ. The sexes, as characterized above, are described from specimens dissected by Mr. Salvin himself, and are, we are inclined to think, correctly distinguished, although it remains to be proved whether there is always this difference between them.

Southwards of Guatemala this *Vireolanius* is said to have been met with at Panama, examples having been transmitted by Mr. McCleannan—the well known investigator of the Ornithology of that rich district—both to Mr. Salvin and Mr. Lawrence. We have, however, some

doubts as to the real occurrence of this bird so far south, and suspect that Mr. McCleannan may have received his skins from a more northern locality.

We are acquainted with the following species of this genus :

1. VIREOLANIUS MELITOPHRYS, supra Pl. VII.
Hab. in Mexico et Guatemalâ, regione elevata.
2. VIREOLANIUS PULCHELLUS, supra Pl. VIII.
Hab. in Guatemalâ, regione calidâ.
3. VIREOLANIUS EXIMIUS.
Vireolanius eximius, Baird, Rev. Am. B. i. p. 398.—*V. icterophrys*, Selater, P.Z.S. 1855, p. 161, pl. 103.
Hab. in Novâ Granadâ interiore.
4. VIREOLANIUS ICTEROPHRYS.
Vireolanius icterophrys, Bp. Compt. Rend. xxxviii. p. 380, et Notes Orn. p. 60; Baird, Rev. Am. B. p. 399.
Hab. in Cayennâ usque ad Rio Negro.
5. VIREOLANIUS CHLOROGASTER.
Vireolanius chlorogaster, Bp. Compt. Rend. xxxviii. p. 381, et Notes Orn. p. 60; Sel. Cat. Am. B. p. 45; Baird, Rev. Am. B. i. p. 399.
Hab. in Peruviâ orientali.

OCTOBER, 1866.



J. Smit lith.

M & N Harbart imp.

PHLOGOPSIS MACLEANI

PLATE IX.

PHLOGOPSIS MACLEANNANI.

(MCLEANNAN'S ANT-THRUSH).

<i>Phlogopsis macleannani</i>	.	.	.	Lawrence, Ann. Lyc. N.Y. vii. p. 285.
"	"	.	.	Sclat. et Salv. P.Z.S. 1864, p. 357.
"	"	.	.	Salvin, P.Z.S. 1866, p. 74.

Fulvescenti-brunneus; intercapulio, alarum tectricibus et secundariis nigris, fulvo latius marginatis; collo postico angustè castaneo; caudâ nigrâ: subtus castaneus, gutture toto ad medium pectus nigro; abdomine nigro vix distinctè ocellato: rostro nigro, pedibus flavis: long. tota 3, alæ 3·5, caudæ 3·4, tarsi 1·2, rostri a rictu 1·0.

Hab. in Isthmo Panama (*McLeannan*); Veragua (*Arcé*); Costa Rica, Tucurriqui (*Arcé*).

This brilliant species of Ant-thrush has been deservedly named by Mr. Lawrence, after its discoverer, Mr. James McLeannan, lately Station-master of the Lion-hill Station, on the Panama Railway, who has laboured so successfully in investigating the Zoology of the Isthmus—until recently almost a *terra incognita* to Naturalists. Mr. McLeannan's specimens were obtained in the dense forests in the vicinity of his residence. Here this bird is not unfrequently to be met with, associating with the other Formicariidæ of the district, and frequenting the ant-runs which traverse the forest in every direction. Besides Panama it is found near Santiago in Veragua, and near Tucurriqui on the eastern slope of the mountain-range of Costa Rica, from both of which localities skins have been sent by Mr. Arcé.

Our figure is taken from a specimen, marked male, from Santiago, now in Messrs. Salvin and Godman's collection.

McLeannan's Ant-thrush is a typical species of the genus *Phlogopsis*, agreeing with *Phlogopsis nigro-maculata* in the naked space round the eye, the rounded nostril, and the undivided acrotarsia, in all of which characters it differs from *Formicarius*, as Mr. Salvin has already pointed out. The tail of the present bird is, however, rather longer, and more rounded than in the typical species. The rectrices are twelve in number, the outer pair being nearly an inch shorter than the medial pair.

We are acquainted with the following species of this genus:—

1. P. NIGRO-MACULATA.

Myiothera nigro-maculata, Lafr. et D'Orb. Syn. Av. 1, p. 14; D'Orb. Voy. Ois. p. 190, pl. 6*, f. 2.—*Formicarius nigro-maculatus*, Scl. P.Z.S. 1858, p. 68.—*Phlogopsis nigro-maculata*, Scl. P.Z.S. 1857, p. 68, 1858, p. 276, et Cat. Am. B. p. 190.

Hab. Bolivia, Chiquitos (*D'Orbigny*): Amazon. sup. et fl. Ucayali, (*Hawxwell*): Rep. Æquator. Rio Napo.

Mus. P.L.S.

2. P. MACLEANNANI.

Hab. Panama (*McLeannan*): Veragua et Costa Rica (*Arcé*).

Mus. P.L.S. et S. & G.

3. P. ERYTHROPTERA.

Formicarius erythropterus, Gould, Ann. N.H. Ser. 2, xv. p. 345; P.Z.S. 1855, p. 69.—*Phlogopsis erythroptera*, Scl. P.Z.S. 1858, p. 276; Salvin, P.Z.S. 1866, p. 734.

Hab. "Demerara, int." (*Gould*).

Mus. Brit.

4. P. TRIVITTATA.

Formicarius trivittatus, Scl. P.Z.S. 1857, p. 46, et 1858, p. 278.—*Phlogopsis trivittata*, Salvin, P.Z.S. 1855, p. 74.

Hab. in ripis fl. Amazonum sup.

Mus. Brit.

JANUARY, 1867.

Exc. Orn. N.



J. Smith lith.

M. & N. Hanhart imp.

CINCLOCERTHIA RJFICAUDA.

PLATE X.

CINCLOCERTHIA RUFICAUDA.

(RED-TAILED TREMBLER).

- Stenorhynchus ruficaudus* Gould, P.Z.S. 1835, p. 186.
Cinclocerthia ruficauda G. R. Gray, List of Gen. p. 17, (1840).
 " " Sel. P.Z.S. 1855, p. 214; 1859, p. 338; 1866, p. 320, et Cat. Am. B. p. 7.
Ramphocinclus tremulus Lafr. Rev. Zool. 1843, p. 67.
Herminierus guadeloupensis, et *H. infaustus*. Less. Rev. Zool. 1843, p. 325.

Fumoso-brunnea unicolor, dorso imo, alis et caudâ rufescentibus: subtus paulò dilutior, magis cinerascens: rostro nigro, basi rufescente; pedibus fuscis; long. totâ 9·5, alæ 4·0, caudæ 3·4, rostri a rictu 1·7.

Hab. in insulâ Guadeloupensi (*L'Herminier*): Nevis (*Cottle*).

Mus. Brit.

The peculiar form of the American group of Miminæ or Mock-thrushes to which this and the two succeeding birds belong, was first made known to science by Mr. Gould, in the Proceedings of the Zoological Society for 1835. Mr. Gould, who was acquainted with the present bird only, proposed to call it *Stenorhynchus ruficaudus*, but the former name having been previously used in several departments of Zoology, was altered by Mr. G. R. Gray to *Cinclocerthia* in 1840. Mr. Gould did not assign any position to the present form in the Systema Naturæ, and Mr. G. R. Gray has associated it with the Furnariinæ. But there can be no doubt that M. de Lafresnaye's reference of it to the Turdidæ is correct, and that it must be placed amongst the Mock-thrushes, along with *Ramphocinclus*, to which it is closely allied. M. de Lafresnaye, indeed, has described the present bird as a second species of *Ramphocinclus*, as has been already pointed out by Mr. Selater.* But the peculiar elongated form of the head, the short stout tarsi and robust feet of the three species of *Cinclocerthia* seem to necessitate the generic separation of the two forms.

The present species has hitherto only been recorded as having been received from Nevis and Guadeloupe, though it probably also occurs in the intermediate island of Monserrat. Two examples of it in the British Museum were obtained in the first-named island, by Mr. Cottle. M. de Lafresnaye's and M. Lesson's skins were alike from Guadeloupe, the latter having been sent to Europe by Dr. L'Herminier, well-known for his excellent essay on the sterna of birds and other works. Mr. Selater has a single skin of this species, purchased of one of the Parisian dealers, without any assigned locality. From this specimen our figure has been taken.

As to the habits of this bird we have unfortunately no information, but from the singular name which it bears in Guadeloupe, and which is shared by its representative in the island of Sta. Lucia,† we cannot but suppose that its mode of life exhibits some peculiarities.

* See Proc. Zool. Soc., 1855, p. 212.

† "Le Merle Trembleuse."



J. Smit. lith.

M. & N. Harbort. imp.

CINCLOCERTHIA MACRORHYNCHA.

PLATE XI.

CINCLOCERTHIA MACRORHYNCHA.

(LONG-BILLED TREMBLER).

Cinclocerthia macrorhyncha Sclater, P.Z.S. 1866, p. 320.

Supra obscure cinerea, fere unicolor, capite præcipue ad latera nigricantiore: subtus lactescenti-alba, pectore et crisso cum lateribus et subalaribus fusco-cinerascentibus: rostro paulum incurvo, nigro; pedibus corylinis: long. tota 10·5, alæ 4·1, caudæ 3·3, rostri a rictu 2·0, tarsi 1·15.

Hab. in insulâ S. Lucia, Antillarum (*Bonnecourt*).

The only example of this species we have yet met with is the typical specimen described by Mr. Sclater as above referred to, from which also our figure has been taken. The example in question belongs to the Museum d'Histoire Naturelle of the Jardin des Plantes, and we have to express our great obligations to the authorities of that establishment for allowing us the use of it for this work.

M. Bonnecourt, the collector of this unique specimen, obtained it in Sta. Lucia in the year 1850. It is labelled "*Le Grive Trembleuse*," which is, as we have already remarked, the same name that *C. ruficauda* bears in Guadeloupe. The sex is noted to be female, but the male is, without doubt, scarcely different.

In a small series of drawings of the birds of Sta. Lucia by Lieut. Tyler, in the Zoological Society's Library, is a figure, evidently intended for this bird, marked "The Trembler."

The present species is at once distinguishable from its two allies by its long bill, but in other points of structure does not materially differ from them. The first (spurious) primary is as large as in the other two species, measuring 1·5 inch from its insertion, and being rather more than half the length of the second primary. The third is slightly shorter than the fourth, fifth, and sixth, which are equal and longest. The present specimen of *C. macrorhyncha* has the tarsi covered anteriorly with a continuous horny sheath, the divisions of the tarsal scutes having become almost obsolete. In specimens of *C. ruficauda* and *C. gutturalis*, these divisions are distinctly indicated and the scutes are five in number, which is probably the normal form of the genus.

JANUARY, 1867.



J. Smit, lith.

M. & N. Hazinart, pmp.

CINCLOCERTHIA GUTTURALIS

PLATE XII.

CINCLOCERTHIA GUTTURALIS.

(WHITE-THROATED TREMBLER).

Ramphocinclus gutturalis Lafr. Rev. Zool. 1843, p. 67.

Cinclocerthia gutturalis Sci. P.Z.S. 1855, p. 214; 1859, p. 338, et 1866, p. 320.

Nigricanti-fusco-cinerea, subtus valdè dilutior; gutture et ventre medio albis: tectricibus subalaribus pallide fusco-cinerascentibus: long. tota 9·5, alæ 4·4, caudæ 3·2, tarsi 1·2, rostri a rictu 1·5.

Hab. in insulâ Martinicensi.

Mus. Paris.

The present member of this genus was first described by M. de Lafresnaye, in 1843, and named *gutturalis*, as being readily distinguishable from the only species of the group then known, *C. ruficauda*, by its white throat. It also differs from *C. macrorhyncha* in its colour below, as in the present bird the under-surface is generally of a dark cinereous, white only reappearing in the middle of the belly, while in *C. macrorhyncha* the whole under-plumage is of a nearly uniform tawny whitish.

M. de Lafresnaye does not give the exact locality of his specimen. But we believe that there is no doubt that the species is from the Island of Martinique, the example in the collection of the Jardin des Plantes, from which our figure is taken, having been collected in that island by M. Plée, in 1826.

There is likewise one specimen of this species in the British Museum.

This and the two preceding species, are the only members of the genus *Cinclocerthia* yet discovered. But it is far from improbable that other islands of the lesser Antilles, may, when more diligently examined, produce representatives of the same group. It is much to be desired that a more accurate investigation of the Fauna of this part of the West Indian Islands should be made, for at present we have in truth but very little information concerning their natural productions, and zoological specimens from any of them are excessively rare in European collections.

JANUARY, 1867.



J. Smit. lith.

M & N. Harhart. imp.

ACCIPITER VENTRALIS.

PLATE XIII.

ACCIPITER VENTRALIS.

(RED-CHESTED SPARROW-HAWK).

- Accipiter erythrocnemius* (?) Sclater, P.Z.S. 1855, p. 134.
Accipiter ventralis Sclater, P.Z.S. 1866, p. 303.

Suprà obscurè plumbeus; subtus castaneus, gulâ albicante, pectore plumbescente; alis nigris, subtus albo transfasciatis; caudâ nigrâ, fasciis transversis quinque, subtus albis, supra plumbeis, item margine apicali albo: rostro nigro, pedibus flavis, unguibus nigris: long. tota 10·0, alæ 6·8, caudæ 5·5, tarsi 2, dig. med. cum ungue 1·6. *Fœm.* mari similis, sed major et gulâ dilutiore, fere albidâ; pectore vix plumbeo tincto.

Hab. in Novâ Granadâ int.

This well-marked species of Sparrow-hawk, was described by Mr. Sclater at a meeting of the Zoological Society, in May, 1866, from an example placed in his hands for examination by Mr. J. H. Gurney, and named *ventralis*, from the rich rufous colouring of the under-plumage, by which it may readily be distinguished from every other American species of the genus. Our figure is taken from the typical specimen, which is destined to form part of the rich collection of Raptorial birds in the Norwich and Norfolk Museum. Two other specimens of this species are contained in the Museum d'Histoire Naturelle of the Jardin des Plantes in Paris, to which they were transmitted by M. Lindig from New Granada. The specimen we now figure is also from that country, the skin being of the unmistakable form by which the work of all the native collectors in the vicinity of Bogota may be recognized.

There is a single mounted specimen of this Sparrow-hawk in the British Museum, also received from Bogota. It is not quite adult, and is less rufous below, presenting faint traces of transverse markings. The under tail-coverts are nearly white, and the plumbeous tinge on the chest is not apparent. In this stage of plumage it somewhat resembles *A. erythrocnemis*, to which species this specimen has been doubtfully referred by Mr. Sclater, in his list of the birds of Bogota.*

* P.Z.S. 1855, p. 134.

JANUARY, 1867.



J. Smith del.

32

M. & N. Hanhart imp.

ACCIPITER CHIONOGASTER

PLATE XIV.

ACCIPITER CHIONOGASTER.

(WHITE-CHESTED SPARROW-HAWK).

<i>Nisus chionogaster</i>	.	.	.	Kaup. P.Z.S. 1851, p. 41.
<i>Accipiter erythrocnemis</i>	.	.	.	Scl. et Salv. Ibis, 1859, p. 218.
"	"	.	.	Salvin, Ibis, 1861, p. 140.
"	"	.	.	Sclater, P.Z.S. 1866, p. 64, (partim.)

Supra fumido-niger; subtus albus, gulæ et pectoris plumarum rachidibus angustissimè nigris: tibiis pallidè rufescentibus: caudâ fusco-nigrâ, fasciis quatuor transversis suprâ grisescenti-fuscis subtus albidis, margine quoque apicali albo: alarum remigibus subtus albo nigroque transvittatis; subalaribus pectore concoloribus: rostro nigro, pedibus flavis, unguibus nigris. *Fœm.* mari similis, sed major: long. tota 14·0, alæ 8·0, caudæ 6·5, tarsi 2·2, dig. medii cum ungue 2·0.

Hab. in Guatemalâ.

This Sparrow-hawk was first described by Dr. Kaup, from specimens in the Derby Museum, procured by Delattre in the vicinity of Coban, Vera Paz. Mr. Salvin, during his various excursions in Guatemala, met with it not unfrequently in the same country, having obtained examples near Lanquin, Choctum, and San Geronimo, all in the Province of Vera Paz. A single specimen was likewise obtained in the Pacific Coast-region below Dueñas, which shows that the bird is pretty generally distributed over the whole of Guatemala. Nothing special was noted as to its habits, which quite resemble those of our well-known *A. nisus*.

As will be seen by our list of synonyms, we have hitherto always referred this bird to the Brazilian *Accipiter erythrocnemis*, of which it is doubtless the northern representative. But a recent comparison of Mr. Salvin's series of specimens with the typical examples of the Brazilian species in the British Museum, has convinced us that there are good grounds for separating the two forms. In *Accipiter erythrocnemis* the tibiæ are deep rufous—almost chestnut, as its name imports—the lower surface over the chest and flanks is transversely barred, and, though these markings become somewhat obsolete in the adult, they never appear to vanish entirely. In the present species, so far as we are acquainted with it, there are no signs of transverse markings below in any stage. A skin of this bird in Mr. Salvin's collection, which presents indications of immaturity in having narrow light margins to the wing-coverts, precisely resembles the adult in its lower plumage.

Our figure is taken from the female specimen shot at Lanquin, as mentioned by Mr. Salvin in "The Ibis." In an early number of the present work, we propose to give a figure of the true *A. erythrocnemis*, and to point out the differences between the two species more in detail.

JANUARY, 1867.



J. Smit. lith.

M & N Hanhart inv.

RUPICOLA SANGUINOLENTA.

PLATE XV.

RUPICOLA SANGUINOLENTA.

(BLOOD-RED COCK-OF-THE-ROCK).

<i>Rupicola sanguinolenta</i>	.	.	.	Gould, P.Z.S. 1859, p. 99.
"	"	.	.	Selater, P.Z.S. 1860, p. 91.
"	"	.	.	Selater, Cat. A. B. p. 253.
<i>Rupicola saturata</i>	.	.	.	Cab. et Hein. Mus. Hein. ii. p. 99.

Saturatè coccinea, cristâ unicolore: alis et cauda nigris; secundariis tribus externis cinereis: rostro aurantiaco, pedibus flavis: long. tota 12·0, alæ 7·2, caudæ 4·4, tarsi 1·4. *Fœm.* obscurè rufo-brunnea, dorso uropygioque rufescentioribus, pileo brunnescentiore.

Hab. in rep. Æquatoriali Transandeanâ, Nanegal (*Fraser*).

The first skins of this brilliantly coloured species brought to Europe were, we believe, those collected by M. Jules Bourcier, during his consulateship in Ecuador, about the year 1850, but the bird was not distinguished from its close ally, the Peruvian Cock-of-the-rock, until 1859, when Mr. Gould pointed out its differential characters, in a communication made to the Zoological Society. These are indeed but slight, consisting mainly in its slightly smaller size, and the blood-red rather than orange-tinted plumage. But the latter is sufficiently striking to be noticeable at first sight.

Mr. L. Fraser obtained examples of this species in February 1859 at Nanegal, a village on the western slope of Pichincha, about 4000 feet above the sea-level. We believe it to be restricted to the western slope of the main range, representing in this district the *Rupicola peruviana* of the eastern face of the Andes.

We have no account of the habits of this particular species in a state of nature, but they are doubtless similar to those of the other known members of the group. Concerning these we may refer our readers to Schomburgk's interesting notes on *Rupicola crocea*, as observed in the Roraima mountains of British Guiana,* and to Goudot's account of the nesting of *R. peruviana*, in New Granada,† as the two most prominent articles on this subject.

We subjoin some remarks upon the present state of our knowledge of the geographical distribution of the three known species of *Rupicola*; concerning which much additional information is still required.

R. crocea, the best known species of the genus, seems to be confined to the granitic plateau of the interior of the three Guianas. Waterton gives a mountain on the river Oyapoc, in Cayenne,

* Naumannia, Jahrg. 1850, p. 34.

† Rev. Zool. 1843, p. 1, et Mag. de Zool., 1843, pl. 37.

as a locality where it is abundant;* and the European dealers are usually well supplied with skins of the well-known "make" of that colony. Richard Schomburgk, as we have already mentioned, met with it in the Roraima mountains, in the interior of British Guiana, at an altitude of about 1000 feet, when engaged in his search for the ripe seeds of the Strychnine (*Strychnos toxifera*.) Mr. Wallace encountered it on the opposite side of its range, on the Serra de Cobati, near Guia on the Upper Rio Negro.

The specimens of the Peruvian Cock-of-the-rock (*R. peruviana*) that have come before us, have been mostly received in collections from Bogota. Whether these were collected in the valley of the Magdalena, or on the opposite watershed, or both, we have no means of ascertaining. Goudot, whose nesting-experiences of this species in New Granada we have before alluded to, unfortunately does not give the exact locality where he observed it.

Tschudi speaks of having seen many hundred examples of *R. peruana*,† in Peru, but he also neglects to mention the precise district in which they occurred. We cannot, however, be wrong in supposing that it was in the eastern wood region of that country, as Markham mentions having met with "Cocks-of-the-rock" in the provinces of Caravaya, on the upper affluents of the Purus.‡ Moreover, D'Orbigny obtained examples of this bird in the adjoining wood-region of Bolivia on the eastern slope of the Andes of Yungas and in the mountains east of Cochabamba.§

As regards the present species, *R. sanguinolenta*, we have already stated that we believe it to be strictly confined to the Transandean forests of Ecuador. Cabanis and Heine, who have described what we consider to be the same species, under the name of *R. saturata*, say that their specimens were stated to have been received from Bolivia. But knowing how little reliance is to be placed on the localities given by dealers, we cannot help thinking there must have been some error on this point.

Full reference to the synonymy of the three species will be found in Mr. Selater's Catalogue of American Birds, p. 253. Our figure is taken from one of Fraser's specimens, from Nanegal, now in Mr. Selater's collection.

* Wanderings in South America, ivth ed. p. 98.

† Travels in South America, &c., p. 255.

‡ Fauna Peruana, Aves, p. 143.

§ Voy. dans l'Am. Merid. Ois., p. 294.



J. Gould del.

M. & N. Harbert, imp.

PORZANA RUBRA.

PLATE XVI.

PORZANA RUBRA.

(RED CRAKE).

Corethrura rubra Scl. et Salv. P.Z.S. 1860, p. 300.
 " " Scl. et Salv. Ibis, 1860, p. 277.

Lætè rufa, subtus medialiter dilutior, gulâ albicantiore : pileo toto et capitis lateribus saturatè cinereis : remigibus et rectricibus cum uropygio obscurè fusco-nigris : rostro nigro ; pedibus olivaceis : long. tota 6·0, alæ 3·25, caudæ 1·7, rostri ab angulo oris 0·8, tarsi 1·3.

Hab. in Guatemalâ, prov. Veræ Pacis, in terrâ calidâ (*Salvin*).

This well-marked Crake, which is an inhabitant of the lowlands of Guatemala, may be considered as the northern representative of *Porzana cayennensis* of South America. It is, however, readily distinguishable from that species by the dark ash-colour of the crown, which in *P. cayennensis* is rufous like the back.

Mr. Salvin first encountered this species in its native state whilst collecting at Coban, in the Province of Vera Paz, in November, 1859 ; though he had become previously acquainted with it, from specimens transmitted to this country by Mr. Skinner. It was, however, found to be much more abundant in the vicinity of Choctum during his subsequent visits to the lowlands of Vera Paz, in company with Mr. F. Godman, in February, 1862 ; and our figure is taken from one of the individuals obtained on this occasion, which is now in Messrs. Salvin and Godman's collection.

In its habits *Porzana rubra* is a true marsh-crake, frequenting the grassy swamps and reedy edges of the lagoons, which occur at intervals in the more open parts of the forests. Its flight is very weak and slow, so much so that the Indian collectors, after forcing it to take wing not without some difficulty, on more than one occasion succeeded in striking it down with the single clay pellet discharged from their *sebaratanas*, or blow-guns.

The Crakes have been divided up into so many small (so-called) genera, without any characters being assigned to these, and there is so much confusion as regards the priority of their names, that we have for the present, at least, felt ourselves compelled to revert to Vieillot's term, *Porzana*,* as a generic name for the whole of them. The present species belongs to a group distinguishable by a nearly uniform coloration, generally more or less rufous, and the entire absence of spots and stripes, to which Bonaparte has applied the name *Rufirallus*.†

* Vieillot's Analyse, p. 61, (1816).—Type *Rallus porzana*, Linn.—*Porzana maruetta*, (Leach).

† Compt. Rend. xliii. p. 599, (1856).—Type *Rallus cayennensis*, Gm.



$\frac{3}{4}$

J Smit lith.

M & N Harhart imp.

ACCIPITER ERYTHROCNEMIS.

PLATE XVII.

ACCIPITER ERYTHROCNEMIS.

(RED-THIGHED SPARROW-HAWK).

<i>Falco nisus</i>	. . . . .	Max. Beitr. iii. p. 111.
<i>Nisus striatus</i>	. . . . .	Burm. Syst. Ueb. ii. p. 71.
<i>Accipiter erythrocnemis</i>	. . . . .	G. R. Gray, List of Accipitres, p. 70, (1848).
" "	. . . . .	Selater, P.Z.S. 1866, p. 303.
<i>Nisus fringillarius</i> , subsp. <i>erythrocnemius</i>	. . . . .	Kaup, Arch. f. Nat. xvi. Bd. i. p. 34, (1850).
<i>Nisus</i> vel <i>Accipiter erythronemius</i>	. . . . .	Kaup, Contr. Orn. 1850, p. 64.

Suprà fumido-niger; subtus albus, pectore et lateribus striis rachidum nigris item fasciis angustis transversis subobsoletè notatis: tibiis latè ferrugineis: caudà fusco-nigrâ, fasciis latis sex, subtus albis, suprà grisescenti-fuscis, ornatâ: alarum remigibus subtus albo nigroque transvittatis; subalaribus albis: rostro nigro, cerâ flavidâ; pedibus flavis: long. tota 11·0, alæ 6·6, caudæ 5·0, tarsi 1·9, dig. med. cum ungue 1·5. Avis junior, *fœm.* subtus maculis triangularibus omninò notata et hypochondriis quoque ferrugineis: long. tota 12·0, alæ 7·7, caudæ 6·0, tarsi 1·9.

Hab. in Brasilia, Merid. Orient.

It might, no doubt, be possible to find older synonyms of Vieillot, and other authors in all probability applicable to this species, which seems to represent our common Sparrow-hawk, in Brazil. But looking to the state of confusion into which the American members of this group have been thrown by the practice of endeavouring to identify the vague descriptions of the older authors, we think it more prudent to retain for the present bird a name, which, having access to the typical specimens, we can affirm is undoubtedly applicable to it. Under our illustration of the nearly allied *Accipiter chionogaster* (anteà Pl. XIV.) we have pointed out the distinctions between this and the Guatemalan bird,—the only American species with which it can be easily confounded when adult, though in the immature forms of all the species there is, of course, a very general resemblance.

Prince Maximilian of Neu Wied, who identifies this bird with the European Sparrow-hawk, did not himself procure it in Brazil, but obtained one specimen of it from a collector, near Bahia. Burmeister calls it *striatus*, after Vieillot, but Vieillot's *Accipiter striatus*, (Ois. de l'Am. Sept. I. p. 42, t. 14), is founded on a species of St. Domingo, most probably referable to *Accipiter fuscus*, and we cannot therefore use his name. Burmeister, however, very accurately points out the differences between the present species and *A. fuscus*, and truly states it to be more nearly allied to the European *A. nisus*. He tells us, moreover, that it is a common species in the district of Brazil which he traversed, often coming near the villages and feeding on small passerine birds (such as *Zonotrichia pileata*), after the same fashion as our well-known Sparrow-hawk. Burmeister obtained

his specimens in the neighbourhood of Lagoa Santa, and Novo Friburgo, but saw it in other places, and it probably extends all over the South-eastern parts of Brazil. Whether it is also found in the adjoining States of South America we cannot positively say, but in all probability Azara's "*Esparverillo*", (Apunt. I. p. 121, No. 27), must be referred to this species, and D'Orbigny's "*Nisus striatus*" from Yuracares in Bolivia, (Voy. Ois. p. 88), may also be conjectured to belong to it.

Our figures are taken from the typical specimens of this species in the British Museum. We may note that Mr. Gray never gave any description of this bird, and that the first published characters are those of Dr. Kaup, above referred to. The species should therefore be correctly cited as *Accipiter erythrocnemis*, Kaup.

Specimens in the Paris Museum, probably referable to the young of this species, are marked "*Sparvius guttatus*, Vieillot," and "*Nisus variatus*, Cuv." But these names are both strictly applicable to Azara's "*Esparverillo pardo y goteado*," which, as far as we can judge from his description, is in all probability a very different bird.

MAY, 1867.

Exc. Orn. XVIII.



J. Smith lith.

M&N Hanhart imp.

ACCIPITER CASTANILIUS.

PLATE XVIII.

ACCIPITER CASTANILIUS.

(CHESNUT-SIDED SPARROW-HAWK).

Accipiter castanilius . . . Bp. Rev. Zool., 1853, p. 578; Compt. Rend. xxxvii. p. 810, et Notes Orn. p. 5.
" " . . . Selater, P.Z.S. 1866, p. 304.

Fusco-ardesiacus, capite cervice et colli lateribus paulò dilutionibus: subtus albus, cinereo regulariter transfasciatus, fasciis pectoris et ventris latioribus et castaneo marginatis, lateribus totis cum tibiis intensè castaneis: remigibus subtus albido latè transfasciatis, subalaribus albis fusco maculatis: rectricibus suprâ nigricantibus, maculis fascialibus in pogonio interno cum apice extremo candidis, subtus griseis, nigricante fasciatis; extimâ utrinque unâ suprâ fuscâ, subtus griseâ unicolore: rostro nigro; cerâ cum pedibus flavis, unguibus nigris: long. tota 14·5, alæ 6·0, caudæ 5·4, tarsi 2·1.

Hab. in Nova Granada littorali, propè S. Martha.

As will be apparent by our figure, the *Accipiter castanilius* is one of the most strongly marked species of the numerous genus to which it belongs, being readily recognizable, in its adult stage at least, by its deep chesnut flanks and broadly banded under-plumage. It is surprising that so noticeable a species should have remained unknown so long, but, as far as we can make out, the first specimens of it received in Europe were those obtained by M. Verreaux's collector, in the vicinity of S. Martha, about the year 1852, upon which Prince Bonaparte's description was founded. It is probable that, like many other birds, this Sparrow-hawk has a very limited range, and is confined to the lower valley of the Magdalena,—a country in which few collections have been formed. If it ascended far up the valley it would come within the grasp of the diligent bird-hunters of Bogota, which does not appear to have been the case.

The Chesnut-sided Sparrow-hawk is of about the same size as *Accipiter collaris*, Selater, and is more nearly allied to that bird than to any other American Sparrow-hawk, having the same robust tarsi and short toes. *A. collaris* is, however, a very distinct species, as reference to the plate and description of that bird in the "Ibis"* will shew.

Our figure of this species is taken from a specimen in the British Museum, which was purchased of M. Verreaux. The bird is decidedly very rare, and we do not recollect to have seen it in any other collection.

* Ibis, 1860, p. 147, t. 6.

MAY, 1867.



J Smit lith.

M&N Harhart imp

CICHOLOPSIS LEUCOGONYS.

PLATE XIX.

CICHLOPSIS LEUCOGONYS.

(YELLOW-BILLED CICHLOPSIS).

<i>Turdus leucogonys</i>	.	.	.	.	Licht. in Mus. Berol.
<i>Cichlopsis leucogonys</i>	.	.	.	.	Cab. Mus. Hein., i. p. 54.
"	"	.	.	.	Scl. P.Z.S. 1857, p. 6, et 1858, p. 542: Cat. A. B. p. 48.
"	"	.	.	.	Baird, Rev. Am. Birds, p. 434.
<i>Myiadestes leucotis</i>	.	.	.	.	Bp. Consp. p. 336, (excl. syn.)
<i>Myiocyhla ochrata</i>	.	.	.	.	Bp. Compt. Rend. xxxviii. p. 6, et Not. Orn. p. 30.
? <i>Turdampelis lanioides</i>	.	.	.	.	Less. Echo du Monde Sav. 1844, p. 156.
? <i>Turdampelis rufococcyx</i>	.	.	.	.	Less. Desc. d. Mamm. et Ois., 1847, p. 324.

Cinnamomescenti-fusca, gutture medio vix rufescente; abdomine pallidè cinereo, crisso flavicante; rostro superiore nigro, inferiore flavicanti-albo: pedibus fuscis; long. tota 8.0 alæ 3.4, caudæ 2.5, tarsi 0.85.

Hab. (ut dicitur) in imp. Brasil.

This rare and little-known American form was first recognizably described by Dr. Cabanis, in a note to the first volume of the "Museum Heineanum," and constituted a special genus of his sub-family Bombycillinæ, under the name "*Cichlopsis*."* It appears, however, to have been previously indicated by a curt description in Bonaparte's Conspectus, although confounded with *Ptilogonys leucotis*, of Tschudi,—a very different bird. It may also have given origin to the two synonyms of Lesson, above quoted, although it would be hazardous to affirm this positively, without access to the specimens whence that author's imperfect descriptions were taken.

For the specific name of the present bird Dr. Cabanis adopted Lichtenstein's MS. term *leucogonys*, by which it had been long designated in the Berlin Museum. Unfortunately, however, he misquoted this very characteristic name by writing it *leucogenys*, and thus, as has been already shewn,† led Prince Bonaparte to fall with greater readiness into the error above mentioned. A few years subsequently that illustrious but inaccurate Ornithologist committed the further mistake of re-describing this bird as a new genus and species of "Vireoneæ," under the name *Myiocyhla ochrata*, borrowed from the MSS. of Dr. Schiff of Frankfort!

So much for the literary history of the *Cichlopsis*. As regards its habits in a state of nature we have absolutely no information. We do not know in what part of the vast and varied empire of Brazil it is met with, and indeed are not sure that it is actually Brazilian at all.

* κίχλη, *turdus* et ὄψις, *similitudo*.

† Cf. *Sclater*, P.Z.S. 1858, p. 542.

None of the recognized authorities on Brazilian Ornithology speak of it, and not one of the specimens of this bird that we have examined has any definite locality attached to it. These specimens, we may observe, are only three in number—a skin in Mr. Sclater's collection purchased of a dealer in Leeds—which is represented in our figure and also formed the subject of Professor Baird's remarks in his "Review of American Birds," and one example in each of the Museums of Berlin and Philadelphia.

As regards the difficult question of the correct systematic position of *Cichlopsis*, we may say that we share in the doubts already expressed by Professor Baird* as to its having much to do with the Bombycillinæ, or, as we prefer to call them, the Ampelinæ, to which group Dr. Cabanis has referred the genus. There can, indeed, be no doubt that *Cichlopsis* is very closely allied to *Myiadestes*, of which it possesses all the most prominent characters, differing only in the longer and much stouter bill, and more uniform style of plumage. So that wherever *Myiadestes* is to be placed, *Cichlopsis* must go next to it. And, as we shall presently point out, in referring to figures of some of the latter group, which we propose to give in our next number, *Myiadestes* appears to have been wrongly associated with *Ampelis*, and should be more correctly referred to the Turdidæ—under which head we include the Sylviidæ—being more nearly allied to *Sialia* than to any other American form of this family.

* Rev. Am. B. p. 417.

MAY, 1867.



J. Smith del.

NYCTIBIUS BRACTEATUS.

M & N Hanhart imp.

PLATE XX.

NYCTIBIUS BRACTEATUS.

often from Petas

(SPANGLED NIGHT-BIRD).

<i>Nyctibius bracteatus</i>	.	.	.	Gould, P.Z.S. 1846, p. 1.
"	"	.	.	Cassin, Cat. Capr. et Proc. Acad. Phil. 1851, p. 184.
"	"	.	.	Sclater, P.Z.S. 1866, pp. 130, 585.
<i>Nyctibius rufus</i>	.	.	.	Cab. in Schomb. Guian. iii. p. 711 (1848).
"	"	.	.	Sclater, P.Z.S. 1866, p. 130.

Læte rufus, plumis minutissimè nigro variegatis, scapularibus et secundariis alarum necnon ventre toto cum crisso maculis albis quadratis terminalibus ornatis, his maculis, præcipue in scapularibus et ventre, nigro suprâ et subtus marginatis: remigibus alarum fusco-nigris extus rufescentibus; caudâ lætè rufâ nigro transfasciatâ: alis subtus nigricantibus: long. tota 9.0, alæ 6.4, caudæ 5.0.

Hab. in Guianâ Britannicâ et valle Amazon.

In the Planches Enluminées, Buffon gives a very poor figure of a Caprimulagine bird from Cayenne, under the name "*Crapaud volant ou Tette-chevre de Cayenne*,"* and describes the same species in his "*Histoire Naturelle*" as *L'Engoulevent roux, de Cayenne*."† Dr. Cabanis, when characterizing the present species of *Nyctibius*, in the third volume of Schomburgk's "*Guiana*," seems to think that it may possibly be the same as that described and figured by Buffon. Dr. Cabanis accordingly names this bird *Nyctibius rufus*, the *Caprimulgus rufus* of Boddaert and Gmelin, having been founded on Buffon's description and figure. In this we cannot agree with him, as if Buffon's bird is to be associated with any known species we should rather be inclined to follow Mr. Cassin in considering it to represent the *Antrostomus rutilus* of Burmeister, than the present *Nyctibius*.‡

Such being the case, Dr. Cabanis' name for this bird must give way to Mr. Gould's term *bracteatus*, under which it is described in the "Proceedings" of the Zoological Society for 1846, from a specimen then in the Museum of the Royal Institution of Liverpool. This specimen was subsequently parted with to Mr. Wilson, and is now, we believe, in the collection of the Academy of Natural Sciences, Philadelphia.

Our figure of this bird is taken from the type of *Nyctibius rufus*, in the Royal Zoological Museum of Berlin, our friend, Dr. William Peters, Director of that Institution, having, with his accustomed liberality, sent it over to us for the purpose.

* Pl. Enl. 735.

† Vol. vi. p. 581.

‡ See Mr. Slater's remarks on this subject, P.Z.S. 1866, p. 136, et p. 585.

Mr. Gould describes his *Nyctibius bracteatus* as from "Bogota." This *may* be a correct locality, but, amongst many thousands of Bogota skins examined, we have never met with it. A more certain *patria* is British Guiana, where Schomburgk obtained a single specimen. Hence it extends over the Amazon valley as far as Pebas, where Messrs. Castelnau and Deville obtained an example now in the Paris Museum.

Nyctibius bracteatus is a very well-marked species, distinguished by its small size, red colouring, and the quadrate white spots on the scapulars and plumage below. It cannot well be confounded with any of the five other known species of the genus, which stand as follows, taking the larger sized first:—

1. NYCTIBIUS GRANDIS.

Caprimulgus grandis, Gm.: Buff. Pl. Enl. 325.

Hab. Cayenne, (*Buff.*): British Guiana, (*Schomb.*): Caraccas, (*Levrard* in Mus. Par.): Upper Ucayali, (*Bartlett*): littoral of S.E. Brazil, (*Max.*).

2. NYCTIBIUS ÆTHEREUS.

Caprimulgus æthereus, Max. Beitr. iii. p. 303.

Hab. Littoral of S.E. Brazil, (*Max.*).

3. NYCTIBIUS LONGICAUDATUS.

Caprimulgus longicaudatus, Spix, Av. Bras. ii. p. 1, t. 1.

Hab. Forests of the river Japura, (*Spix*): Maynas, E. Peru, (*Tschudi*).

4. NYCTIBIUS JAMAICENSIS.

Caprimulgus jamaicensis, Gm.: *Capr. cornutus*, Vieill.: *N. pectoralis*, Gould, Ic. Av. t. 8: *Nyct. urutao*, Lafr.

Hab. Jamaica, (*Gosse*): Trinidad, (*Léotaud*): Guatemala, (*Salvin*): Western Ecuador, (*Fraser*): Eastern Peru, (*Tsch.*): Brazil, (*Burm.*): Paraguay, (*Azara*).

5. NYCTIBIUS LEUCOPTERUS.

Caprimulgus leucopterus, Max. Beitr. iii. p. 311: Des Murs, Icon. Orn. tt. 49, 50.

Hab. Littoral of S.E. Brazil, (*Max.*).

Full details concerning the synonymy and other particulars of these species have been given by Mr. Selater, in his recently published papers on the American Caprimulgidæ.*

* P.Z.S. 1866, p. 123, et p. 581.

MAY, 1867.

Exc. Orn. XXI.



J. Smits lith.

M. & N. Hanhart imp.

CYPHORHINUS LAWRENCII.

PLATE XXI.

CYPHORHINUS LAWRENCII.

(LAWRENCE'S WREN).

<i>Cyphorhinus cantans</i>	.	.	.	Lawrence, Ann. N.Y. Lyc. vii. p. 293.
<i>Cyphorhinus lawrencii</i>	.	.	.	Slater, MS.
"	"	.	.	Lawrence, Ann. N.Y. Lyc. viii. p. 5.
"	"	.	.	Sci. et Salv. P.Z.S. 1864, p. 345.
"	"	.	.	Baird, Rev. Am. Birds, p. 113.

Supra fuscus; alis et caudâ extus nigro frequenter transfasciatis: regione auriculari, mento, gutture et pectore toto castaneis: ventre medio cinereo, lateribus et crisso brunnescens: rostro corneo; pedibus fuscis: long. totâ 5.0, alæ 2.5, caudæ 1.55.

Hab. in Isthmo Panamensi.

This Wren somewhat resembles the *Cyphorhinus musicus* of Cayenne, figured in the Planches Enluminées, under the name "Le Musicien de Cayenne," and was formerly considered by Mr. Lawrence to be identical with that species. Such, however, is not the case, the bird being in fact, much more nearly related to *Cyphorhinus modulator*, and to the species figured in the next plate than to *C. musicus*, which is readily distinguishable from all its congeners by the white spots on the back of the neck. Mr. Slater, to whom Mr. Lawrence's specimens were sent for comparison, pointed out this error, and proposed to call this bird *Cyphorhinus lawrencii*, under which name it will be found described in our paper on Panama birds, in the Zoological Society's Proceedings for 1864.

As in many other cases, we owe the discovery of this bird to Mr. J. McLeannan, to whose energetic researches on the Isthmus of Panama we have already alluded. We have no particulars as regards its habits, but in all probability it is an excellent songster—like the two best-known species of the genus, *C. musicus* and *C. modulator*. Besides Mr. McLeannan's examples, the only specimens we have seen of the present Wren were collected by Arcé during his short sojourn at Chepo, about forty miles south of the town of Panama on the Pacific slope.

As already stated, the nearest allies of the present bird are *C. modulator* and *C. phaeocephalus*. From both of these species it is distinguishable by the distinct termination of the rufous colouring below at the breast, and the cinereous belly, in which respects it more closely resembles *C. musicus* than either of the above-named species.

Our figure of this bird is taken from a Panama skin collected by Mr. McLeannan, now in Mr. Slater's collection.

MAY, 1867.

Ex. Orn. XXII.



J. Smit lith

M & N Hanhart imp.

CYPHORHINUS PHÆOCEPHALUS.

PLATE XXII.

CYPHORHINUS PHÆOCEPHALUS.

(DUSKY-HEADED WREN).

Cyphorhinus phæocephalus Sclater, P.Z.S. 1860, p. 291 et Cat. Am. Birds, p. 19.

Brunneus, pileo saturatiore, fere nigricante, alis caudaque nigro transradiatis: subtus saturatè rufus, abdomine brunneo, medialiter dilutiore: long. tota 4·8, alæ 2·5, caudæ 1·3.

Hab. in republicâ Æquatoriali, regione littorali.

Mr. L. Fraser, during his expedition to Ecuador, passed the three final months of the year 1859 at Esmeraldas on the sea-coast—the capital of the most northern province of the republic. About 94 species of birds were obtained here, but although the locality had not, as far as we know, been previously visited by collectors, very few of them proved to be new to science. Amongst them, however, were examples of the present species of Wren, which was shortly afterwards characterized by Mr. Sclater, from Mr. Fraser's specimens: from these also our figure has been taken. Mr. Fraser states that the two examples obtained were met with "flying from bush to bush, singing, along with four or five others."

The present species is distinguishable from *C. modulator* by its blackish head and larger bill, and from *C. lawrencii* of Panama by its brown belly, which is like that of *C. modulator*.

The genus *Cyphorhinus* of Cabanis, as restricted by Prof. Baird,* forms a small but well-marked section of the family Troglodytidæ, which is so largely represented in South America. The characters which readily distinguish it from other sections of the family are the high straight culmen, and more especially the circular nostril which is entirely surrounded by membrane. We are acquainted with four species of the genus, which may stand as follows:—

1. CYPHORHINUS MODULATOR.

Thryothorus modulator, D'Orb. Voy. Ois. p. 230.—*Sarochalinus rufogularis*, Des Murs, Casteln. Voy. Ois. p. 49, t. 17, f. 2.

Cyphorhinus modulator, Scl. P.Z.S. 1858, p. 63, et Cat. A. B. p. 19.

Cyphorhinus thoracicus, Tsch. F.P. p. 184, t. xvi. Bp. Consp. p. 224.

Hab. Bolivia, prov. Yungas, (*D'Orb.*): Eastern Peru Uchubamba, (*Tschudi*), Sarayacu, (*Cast. et Dev.*).

2. CYPHORHINUS PHÆOCEPHALUS. (Pl. XXII.).

Hab. Western Ecuador, Esmeraldas.

3. CYPHORHINUS LAWRENCII. (Pl. XXI.).

Hab. Panama.

4. CYPHORHINUS MUSICUS.

Turdus musicus, Bodd ex Pl. Enl. 706.—*Turdus cantans*, Gm. S.N. p. 825.—*Turdus arada*, Lath. Ind. Orn. i. p. 358.

Platyurus rubecula, Sw. N.H. Birds, II. p. 319.—*Thryothorus carinatus*, Sw. Orn. Draw. t. 14.—*Cyphorhinus musicus*,

Sclater, Cat. Am. B. p. 19.

Hab. Cayenne, (*Buff.*).

* Rev. Am. B. pp. 93, 112.

MAY, 1867.



J. Smith lith.

M. & N. Hammett imp.

TROGLODYTES SOLSTITIALIS.
..... BRUNNEICOLLIS.

PLATE XXIII, FIG. 1.

TROGLODYTES SOLSTITIALIS.

(ÆQUATORIAL WREN).

Troglodytes solstitialis Sclater, P.Z.S. 1858, p. 550, 1860, p. 84, et Cat. Am. Birds, p. 23.

Supra rufescenti-brunneus unicolor, alis et caudâ nigro transfasciatis: uropygii maculis albis celatis nullis: superciliis distinctis et lateribus capitis fulvis: subtus fulvus, ventre medio albicante, crisso nigro transfasciato: long. totâ 3·9, alæ 1·9, caudæ 1·3, tarsi 0·8.

Hab. in republ. Æquator. (*Fraser*): Bogota (Mus. P.L.S.).

This little Wren was one of Mr. Fraser's discoveries during his expedition to Ecuador, in 1857 and the following years. The species was met with in June 1858, in the vicinity of Matos and Pinipi,—two little villages on one of the upper branches of the Pastazza, some dozen leagues or so from Riobamba, and probably rather below 10,000 feet above the sea-level. Two examples only were obtained, which were noted by Mr. Fraser as having the irides "dark-hazel." Other skins were subsequently procured near Nanegal in the same republic, and Mr. Sclater's collection contains a single example of the same bird from Bogota, so that it probably inhabits the whole of the elevated districts of New Granada and Ecuador.

Troglodytes solstitialis is a smaller and shorter-winged species than the common *T. furvus* of South America, which it generally resembles. It is also of a darker and more uniform rufous above—and the belly is much lighter, nearly white in the middle. The ground-colour of the tail in the present species is dark-brown like the back, and the black bands are closer and more numerous. The crissum is banded, which is not the case in *Troglodytes furvus*, and there is a very distinct superciliary stripe, which is nearly evanescent in the allied species.

Our figure of this species is taken from one of the typical specimens from Ecuador in Sclater's collection. It is marked "male," but the sexes are in all probability identical.

MAY, 1867.

PLATE XXIII, FIG. 2.

TROGLODYTES BRUNNEICOLLIS.

(BROWN-NECKED WREN).

<i>Troglodytes brunneicollis</i>	.	.	.	Sclater, P.Z.S. 1858, p. 297, 1859, p. 372 et Cat. Am. Birds, p. 23.
"	"	.	.	Scl. et Salv. Ibis, 1860, p. 273.
"	"	.	.	Baird, Rev. Am. B. p. 144.
" <i>Troglodytes ædon</i> ?"	.	.	.	Sclater, P.Z.S. 1859, p. 363.

Supra saturatè murino-brunneus, superciliis palide fulvis; dorso toto alis et caudâ nigro transfasciatis, his fasciis marginem inferiorem fere albicantem exhibentibus: subtus ad medium pectus rufescenti-fulvus, ventre toto hypochondriis et crisso albidis, nigro frequentissimè transfasciatis: long. totâ 4·5, alæ 2·0, caudæ 1·8, rostri a rictu 0·7.

Hab. in Mexico Meridionali, La Parada (*Boucard*), Orizaba (*Sumichrast*): Guatemala, Volcan de Fuego (*Salvin*).

This is a well-marked species of Wren, somewhat resembling *Troglodytes hyemalis* in general plumage, but easily distinguishable by its larger size and longer tail. It is, in fact, strictly referable to the section allied to *Troglodytes ædon*, whilst *Troglodytes hyemalis* is more nearly allied to *Troglodytes europæus*.

We owe the discovery of this species, as of many other rare Mexican birds, to the researches of M. Adolphe Boucard. In December, 1857, M. Boucard obtained his first specimens of it at La Parada, a village situated about six leagues from Oaxaca, in the "tierra fria" of Southern Mexico, some 10,000 feet above the sea-level. Other examples were collected at Cinco Señores, in the same district, about three months afterwards. The species, however, is not confined to the western provinces of Southern Mexico, as Prof. Baird records its having been obtained near Orizaba, by Prof. Sumichrast; and two skins in Mr. Sclater's collection, procured by M. de Oca near Jalapa, and formerly doubtfully referred to *T. ædon*, appear to be the young of this bird. Further south, *T. brunneicollis* extends into Guatemala, examples having been shot by Mr. Salvin in the forest-zone of the Volcan de Fuego, at an elevation of about 7,000 feet, in September, 1859. Mr. Salvin also noticed this species on subsequent visits to the Volcano, but generally at a rather higher elevation of about 10,000 feet, where the pine-region commences. It was generally seen in small parties of five or six individuals, among the coarse grass and shrubs, keeping carefully away from view, and uttering a rather clear wren-like call-note.

Our figure of this Wren is taken from one of the typical specimens in Mr. Sclater's collection, obtained by Boucard at La Parada.

MAY, 1867.



J. Smit lith.

M. & N. Hanhart imp.

ICTERUS PUSTULATUS.

PLATE XXIV.

ICTERUS PUSTULATUS.

(SPOT-BACKED HANG-NEST).

<i>Icterus pustulatus</i>	.	.	.	Licht. in Mus. Berol.
<i>Psarocolius pustulatus</i>	.	.	.	Wagl. Isis, 1829, p. 757.
<i>Icterus pustulatus</i>	.	.	.	Bp. Consp. p. 435; Compt. Rend. xxxvii. p. 835, et Not. Orn. p. 12.
"	"	.	.	Sclater, P.Z.S. 1857, p. 228; 1858, p. 303; et Cat. Am. B. p. 134.
"	"	.	.	Baird, Birds N. Am. p. 550.

Aurantiacus, rubro tinctus: intercapulio nigro guttato; alis caudaque nigris, illis albo marginatis et hujus apice anguste albo: loris et gutture toto nigris: subalaribus flavis, remigum marginibus interioribus albis: rostro et pedibus plumbeis: long. tota 8·5, alæ 4·0, caudæ 3·8, tarsi 0·9. *Æm.* omnino dilutior; magis flavescens, intercapulio olivaceo nigro guttato.

Hab. in Mexico Meridionali, La Parada (*Boucard*, 1858); Atlisco (*Boucard*, 1865); Mazatlan (*Neboux*, in Mus. Paris.).

The brilliant group of Golden Hang-nests forms a conspicuous feature in the Ornithology of Mexico and Central America, extending northwards into the United States, and southwards into the northern parts of South America, but in each case in diminishing numbers, as regards species. Southern Mexico appears to be about the focus of the group, more than a dozen species occurring in this country, whilst Guatemala has very nearly, if not quite as many. In the latter country, according to Mr. Salvin's observations, these birds are rather locally distributed, but numerous wherever they are found, and well-known everywhere, not only from their conspicuous colouring, but also on account of the short sweet song possessed by several of them.

The present beautiful species was described by Wagler, as long ago as in 1829, in one of the supplementary papers to his "Systema Avium," published in the "Isis." His characters were taken from examples in the Berlin Museum, which bore the MS. name "*Icterus pustulatus*, Lichtenstein,"—and were probably from Deppe's Mexican collection. As far as we know, *I. pustulatus* appears to be mainly a western species, having been obtained by M. Boucard at La Parada in Oaxaca; and by Neboux during one of the French expeditions near Mazatlan. Prince Bonaparte states that specimens of this bird were collected by Delattre in "California." Mr. Salvin also has a skin of the present species, purchased of a London dealer, with one of Mr. Gruber's printed labels on it, on which is written, "*Icterus cucullatus*, Hooded Oriole, Cape S. Lucas, May, 1861. ♂. no. 178." We do not much doubt the accuracy of this locality, for, although Prof. Baird seems to think its Californian occurrence somewhat apocryphal,

here seems to be no reason why it should not be found in the southern borders of that country, —or at least in Lower California.

Icterus pustulatus, in its adult stage, is unmistakeably distinguishable from every other known species of the group, by the clearly defined spotting of the interscapulars. Its nearest ally is *I. mentalis* of Lesson, which generally resembles it, but has the interscapular region all black, and less white on the wings. The lower plumage of these two species is quite alike, and is remarkable, even among the *Icteri*, for its deep rich orange tint.

Our figures are taken from specimens in Mr. Sclater's collection.—The male represented is one of Boucard's skins, collected at "Atlisco" in Mexico, in 1866.—The female was obtained by exchange from the Hamburgh Museum, in 1854.

MAY, 1867.



PLATE XXV.

MYIADESTES OBSCURUS.

(DUSKY SOLITAIRE).

<i>Myiadestes obscurus</i>	.	Lafr. Rev. Zool. 1839, p. 99.
"	"	Sclater, P.Z.S. 1857, p. 213; 1859, pp. 364, 376; Cat. A. B. p. 47.
"	"	Sclat. et Salv. Ibis, 1859, p. 14.
"	"	Baird, Rev. A. B. p. 430.

Schistaceus; ciliis oculorum albis, loris et striga rictali nigris: alis fusco-nigris, extus rufo limbatis: interscapulio pallidiore rufo; dorso imo olivaceo perfuso; subtus dilutè schistaceus, gutture et ventre medio cum crisso albicantibus: remigum maculâ magnâ internâ ochraceo-albâ: cauda nigricante, rectricibus duabus mediis cum unius utrinque proximæ pogonio externo griseis; rectricibus lateralibus albo terminatis; harum unius utrinque extimæ dimidio apicali pallide griseo: rostro nigro, pedibus fuscis: long. tota 7.5, alæ 4.0, caudæ 4.1.—*Fœm.* mari similis.

Hab. in Mexico Merid. et Guatemalâ.

This Solitaire was first made known to science by the veteran French Ornithologist, the late Baron de Lafresnaye, who has added so largely to our knowledge of the American Avifauna. M. de Lafresnaye described the species from Mexican specimens, and recent collections have contained examples of it from many localities in the Southern States of that country. Botteri and Sumichrast have each met with it in the vicinity of Orizava, De Oca near Jalapa, and Boucard in the mountainous districts of Oaxaca, where the eggs were likewise procured. Professor Baird registers specimens as having been obtained by Xantus at Tonalá in the southern part of the State of Chiapas, and by Col. Grayson on the Tres Marias Islands, which is the most northern locality for it we are acquainted with. Going southward this species is very abundant in some parts of Guatemala, where it is generally known by the name of the *Guarda-barranca*—or guard of the ravines. It is diffused throughout the high table-land, of from 5000 to 7000 feet above the sea-level, which runs parallel with the Pacific Coast of Guatemala, and constitutes the principal watershed between the Atlantic and Pacific. Hence it follows the principal spur of the main chain, which extends towards the high-lands of Vera Paz, as far as the village of Tactic, but a little further northwards is replaced by the allied species—*Myiadestes unicolor*.

In the ravines of the two Volcanoes of Agua and Fuego, Mr. Salvin found this bird to be very abundant and constantly resident. Its clear, metallic, ringing song, which is uttered at intervals throughout the day, at once attracts attention and makes its presence known. But it sits concealed in the low thick bushes which clothe the gullies, and it is not very easy to get

a sight of it. The nest is placed near the ground in such situations. Mr. Salvin was not fortunate enough to meet with it, but M. Boucard obtained specimens of the eggs in the province of Oaxaca, in the month of May, 1858. These are very Robin-like in appearance, being white, minutely spotted and freckled with reddish-brown, particularly at the larger end, where the spots nearly cover the entire surface. They measure 0.95 by 0.75 in.

The *Guarda-barranca* is a favourite cage-bird of the Guatemalans, and sings readily in confinement. It may be seen suspended in small bamboo cages in the corridors of many Spanish houses, often in company with such fellow-captives as *Mimus gracilis*, and various species of *Icterus*.

We are not aware of the occurrence of *Myiadestes obscurus* further south than Guatemala, —the next species met with in this direction being the very distinct *M. melanops* of Costa Rica.

Our figure of the present bird is taken from a Guatemalan skin in Mr. Selater's collection.

AUGUST, 1867.

For. orn.

Plate XXVI.



J. Smith del.

M. & N. Harcourt imp.

MYIADESTES UNICOLOR.

PLATE XXVI.

MYIADESTES UNICOLOR.

(GREY SOLITAIRE).

<i>Myiadestes unicolor</i>	.	.	Sclater, P.Z.S. 1856, p. 299; 1858, p. 97; Cat. A. B. p. 47.
"	"	.	Sclat. et Salv., Ibis, 1860, p. 397.
"	"	.	Baird, Rev. A. B. p. 428.

Schistaceus ferè unicolor, loris nigris; oculorum ambitu albo: subtùs paulo pallidior, ventre medio albicantiore: alis nigris, extus brunnescenti-oleagineo partim marginatis: caudâ nigrâ, rectricibus duabus mediis dorso concoloribus, rectricum lateralium parte apicali pallidiore et harum apicibus ipsis albis: rostro nigro; pedibus corylinis: long. totâ 7.5, alæ 3.8, caudæ 3.4.—*Fœm.* mari similis.

Hab. in Mexico merid. orient. in Guatemalâ orientali.

We are indebted for our knowledge of this fine species of Solitaire to the researches of M. Auguste Sallé of Paris, well-known as one of the most active and enterprising of the present generation of travelling Naturalists. M. Sallé's examples of both sexes of this bird (which exactly resemble one another), were collected near Cordova in the State of Vera Cruz, and the species was first characterized by Mr. Slater, in his general article on M. Sallé's Mexican collections, published in the Zoological Society's "Proceedings" for 1856. Our figure of this bird is taken from one of M. Sallé's specimens, still in Mr. Slater's collection, which served for the original description of the species.

A second Mexican locality for *Myiadestes unicolor* is the vicinity of Orizaba, whence Botteri has forwarded specimens, but we have never met with it in any collection formed in the western part of Southern Mexico, where *M. obscurus* appears to be the only species. In Guatemala also, as has been already mentioned, it is only in the eastern forests of Vera Paz that this species occurs. Travelling towards Coban from Guatemala, the last outliers of the allied *M. obscurus* are left shortly before reaching the village of Sta. Cruz. At Coban—a few leagues further on—the present bird has supplanted it, and is abundant in all the patches of wood which clothe the peculiar conical hills of that district. It is also found in the vast forests of Central Vera Paz, at the comparatively low elevation of 1200 feet above the sea-level. Many specimens were obtained by Mr. Salvin's hunters at Choctum in this district, and its characteristic notes were often heard still further north, on the track leading to Peten.

The Guatemalan name of this species is the "*Pito real*," or "Royal Thrush;" which shows that the natives appreciate its distinctness from the allied "*Guarda-barranca*." The external

characters which separate the two allies are associated with corresponding differences in their notes,—the songs of the two birds, although similar in character, being sufficiently distinct to be easily recognizable.

A specimen of the nest and eggs of this bird was obtained by one of Mr. Salvin's collectors in the vicinity of Coban. The nest is a cupshaped structure, formed of fine roots and small twigs, and lined principally with moss. The eggs are very similar to those of the last species.

AUGUST, 1867.

Ex. Orn.

Plate XXVII.



J. Smit lith

M & N Hanhart imp

MYIADESTES · RALLOIDES.

PLATE XXVII.

MYIADESTES RALLOIDES.

(ANDEAN SOLITAIRE).

<i>Muscipeta armillata</i>	.	Lafr. et d'Orb. Mag. de Zool. 1837, Ois. p. 38.
<i>Muscipeta ralloides</i>	.	d'Orb. Voy. Ois. p. 322.
<i>Ptilogonys griseiventer</i>	.	Tsch. Wieg. Arch. 1844, i. p. 270; Faun. Per. Aves, pp. 7, 140.
<i>Myiastes griseiventer</i>	.	Cab. Wieg. Arch. 1847, i. p. 209.
" "	.	Bp. Consp. p. 336.
<i>Myiastes venezuelensis</i>	.	Slater, Ann. et Mag. N. H. Ser. 2, vol. xvii. p. 468; P.Z.S. 1860, p. 64; Cat. Am. B. p. 47.
" "	.	Baird, Rev. A. B. p. 427.

Supra pallidè rufus, uropygium versùs saturatior; pileo cinerascens: loris nigricantibus: lateribus capitis et corpore toto subtus schistaceis, hypochondriis paulùm rufescentibus: alis nigris brunneo extus variegatis, maculâ magnâ internâ albâ: caudâ nigrâ, rectricibus duabus mediis brunnescentibus, lateralibus magis pallidis et albo terminatis: rostro nigro, basi pallido: pedibus pallide corylinis: long. tota 6.0, alæ 3.4, caudæ 2.8.—*Fem.* mari similis. *Junior*, maculis rotundis pallidè rufis nigro-marginatis undique aspersus.

Hab. in Boliviâ, Peruviâ, rep. Æquatoriali, Nov. Granadâ et Venezuelâ.

While the northern and Antillean species of this group are specially restricted in their geographical areas, the present bird appears to have a wide range in South America, where, if we exclude the aberrant *Ptilogonys leucotis* of Tschudi, it is the only representative of the genus. Mr. Slater first met with examples of the present bird in the Museum of the Jardin des Plantes, to which establishment they had been transmitted by M. Levraud from Caraccas; and, not being aware of its identity with Tschudi's and d'Orbigny's species, described it as new from M. Levraud's specimens. Subsequent examination of the type of d'Orbigny's *Muscipeta ralloides*, in the same collection, has convinced him of the identity of the Venezuelan and Bolivian bird, and though it is not very easy to make out Tschudi's description of his *Ptilogonys griseiventer* (which has evidently been taken from a young bird), it is more than probable that this is also a synonym of the present species.

Assuming this view to be correct, the present Solitaire may probably occur in suitable localities throughout the eastern slopes of the Andes, from the neighbourhood of Caraccas to the vallies of Yungas in Bolivia. It is not unfrequently to be met with in Bogota collections. Mr. Fraser shot specimens of it at Pallatanga in Ecuador, in November, 1858. Tschudi gives as its locality the outskirts of the eastern wood-region of Peru. D'Orbigny met with a single specimen in the environs of Chulumani, in the province of Yungas in Bolivia.

Our figures of this species are taken from skins in Mr. Sclater's collection,—the adult being a "Bogota" skin, and the young bird in spotted plumage from Ecuador.

In our article on *Cichlopsis*, we have already indicated our views as to the correct position of the genus *Myiadestes*, in the natural series. It belongs, no doubt, to the family Turdidæ, from which the so-called Sylviidæ of the Old World cannot be dissociated. Besides the general external form, the power of song, and the character of the immature plumage, lead to this interpretation of its affinities. The *continental* species of this group, taking them according to their geographical distribution, from north to south, are,—

1. M. TOWNSENDI.

Ptilogonys townsendi, Aud.

Myiadestes townsendi, Baird, Rev. A. B. p. 429.

Hab. Mountainous regions of middle and western states of N. America (*Baird*).

2. M. UNICOLOR (Plate XXV).

Hab. Eastern portion of Southern Mexico, and northern districts of Vera Paz.

3. M. OBSCURUS (Plate XXVI).

Hab. Southern Mexico, principally on the western side; Western Guatemala, and Southern Vera Paz.

4. M. MELANOPS.

Myiadestes melanops, Salvin, P.Z.S. 1864, p. 580, t. xxxv : Baird, Rev. A. B. p. 426.

Hab. Eastern slope of Costa Rica.

5. M. RALLOIDES (Plate XXVII).

Hab. Subandean vallies on both slopes from Caraccas to Bolivia.

AUGUST, 1867.



J. Smit lith

M & N Hanhart imp

MYIADESTES ELIZABETHÆ.

PLATE XXVIII.

MYIADESTES ELISABETHÆ.

(CUBAN SOLITAIRE).

- | | | | |
|-----------------------------|---|---|---|
| <i>Muscicapa elisabeth</i> | . | . | Lembeye, Aves d. Cuba, p. 39, t. v. fig. 3. |
| <i>Myiadestes elisabeth</i> | . | . | Cab. Journ. f. Orn. 1856, p. 2: Gundlach, Ann. L. N. Y. vi. p. 271, et Journ. f. Orn. 1861, p. 328. |
| " | " | . | Baird, Rev. A. B. p. 425. |
| " | " | . | Gundl. Rep. F. N. de la Isla de Cuba. Vol. I. p. 240. |

Suprà fuscescenti-olivaceus, subtùs albus, cineraceo præcipue in pectore perfusus: loris et spatio oculari rufescentibus: strigâ mentali nigricante: alis nigris fulvo variegatis, maculâ magnâ internâ pallidè ochraceâ: caudâ nigricante, rectricibus quatuor mediis dorso concoloribus, lateralibus extùs pallidioribus et albo terminatis: rostro corneo, subtus ad basin albicante; pedibus pallidè corylinis: long. tota 7·0, alæ 3·4, caudæ 3·1.

Hab. in ins. Cubâ et in ins. Pinorum.

The Cuban Solitaire was first described scientifically by Lembeye, in his "Aves de la Isla Cuba," published at Havana in 1850, though it appears to have been long well-known by the Spanish inhabitants of the Island under the name of "Ruisseñor," or Nightingale. Like the other members of the genus, it possesses, as is indicated by its native name, great powers of song, which are much dilated on by Lembeye in the work just spoken of. He gives, however, but few other details concerning its habits, merely mentioning that it is supposed to breed in the mountain-forests of the eastern portion of the island.

Lembeye placed this bird in the genus *Muscicapa*, and Dr. Cabanis was the first to point out, from an examination of skins transmitted to Berlin by Gundlach, its true position in the natural series. According to Gundlach's notes, it is also found in the Island of Pines, and in the stony mountains of Western Cuba, and is frequently captured and kept in cages. Its food, he tells us, "consists of berries and insects. Its voice is quite peculiar, resembling an Æolian harp, or glass-harmonicum. The song is simple, commencing low, becoming gradually louder, and ending in a trill."

Specimens of the Cuban Solitaire, as of all the other peculiar forms of that Island, are rather rare in European collections. Our figure is taken from a skin in Mr. Sclater's collection, received through the Smithsonian Institution. It is that of a male,—No. 21,670 of the Smithsonian Catalogue—and was procured by Mr. Charles Wright, at "Donna del Gate," in Cuba.

We have already given a list of the continental species of this genus. The Antillean members of the group are much less known. They appear, however, to be at least four in number, namely:—

1. *M. elisabethæ*, of Cuba, (Plate XXVIII).
2. *M. solitarius*, Baird, Rev. A. B., i. p. 421; (*M. armillatus*, auctt. nec Vieilloti) from Jamaica.
3. *M. armillatus*, Vieill. Ois. de l'Am. Sept. i. p. 69, t. 42; Baird, *l. c.* p. 422—supposed to be from Martinique.
4. *M. genibarbis*, Sw. Nat. Libr. p. 134, t. 13; Baird, *l. c.* p. 423—habitat unknown.

We have only seen specimens of the two first of these species, but it is evident that most of the mountainous islands of the Antilles possess a representative of the genus. Mr. Hill has given us some details concerning the Haytian species, in Gosse's Birds of Jamaica (p. 202); and also speaks of the occurrence of the same form in St. Vincent. We have not yet met with specimens from either of these islands.

AUGUST, 1867.

Exc. Orn.

Plate. XXIX



J Smit lith.

M & N Hanhart imp

HYLACTES CASTANEUS.

PLATE XXIX.

HYLACTES CASTANEUS.

(CHESTNUT HYLACTES).

Pteroptochus castaneus . . . Phil. et Landb. Wieg. Arch. 1865, p. 56; ib. 1866, p. 121.
Hylactes castaneus . . . Selater, P.Z.S. 1867, p. 325.

Supra olivaceo-cinereus, alis extus rufescenti-olivaceis, tectricum majorum et secundariorum apicibus pallidis; uropygii plumis elongatis, castaneo tinctis, fasciâ subapicali nigrâ, ochraceo terminatis: caudâ nigrâ: fronte, superciliis et corpore subtus ad medium pectus castaneis: oculorum ambitu sordidè albo: abdomine medio cinereo, castaneo variegato: crisso nigro et castaneo transfasciato: rostro et pedibus nigris: long. tota 9·0, alæ 4·2, caudæ 2·6, tarsi 1·9, digiti postici cum ungue 1·6, rostri a rictu (lin. dir.) 1·0.

Hab. in Rep. Chilianâ.

Messrs. Philippi and Landbeck, the Director and Sub-director of the Museum of Santiago in Chili, have, during the last few years, contributed a series of valuable papers on the Natural History of their adopted country to "Wiegmann's Archiv," in the course of which they have made many valuable additions to our knowledge of the Chilian Fauna. Amongst these there is none of greater interest than the fine species now portrayed; forming, as it does, an additional member of a limited but very characteristic group of Chilian birds.

The *Pteroptochus castaneus*, as its describers have called this new species, from the prevailing chestnut colouring of its plumage, is most nearly allied to the *Hylactes tarnii* of King, and belongs strictly to the same small group, which is easily distinguishable from typical *Pteroptochus* by the very strong feet, the remarkable size of the hind-claw, and the possession of fourteen tail-feathers.

It was first met with by Messrs. Philippi and Landbeck, in December, 1860, in the Hacienda de la Puerta, in the Province of Colchagua, at an elevation of about 5000 feet above the sea-level. Here it was observed in small companies, frequenting the deep ravines traversed by the streams which descend from the neighbouring snow-fields. Its call is stated to have a great resemblance to that of *H. tarnii*, reminding one of the distant bark of a small dog. Subsequently, additional specimens were obtained by the same Naturalists in a more northern part of the Province of Colchagua, in the month of November. Two of these were full grown young, so that this bird may be supposed to breed early in the Antarctic Summer. Its favourite resort here appeared to be the bottoms of the deepest and dampest ravines, which are densely clothed with a coarse grass called "quila" and thickets formed by a kind of beech. Similar

localities are stated to be affected by its close ally *H. tarnii*, which represents it in the more Southern Provinces of Concepcion and Valdivia.

The present species, along with its allies of the same group, *H. tarnii* and *H. megapodius*, possesses fourteen rectrices,—a salient point of distinction between them and the typical *Pteroptochi*, in which the normal Passerine number of twelve is preserved.

Our figure of this species is taken from a specimen in Mr. Sclater's collection, obtained from the describers direct.

The genus *Hylactes* contains, as far as our present knowledge extends, only the three following species, viz.:—

1. *HYLACTES TARNII*.

Hylactes tarnii, King, P.Z.S. 1830-1, p. 15; Cab. et Hein. Mus. Hein. ii. p. 21: *Megalonyx ruficeps*, Lafr. et D'Orb. Syn. Av. i. p. 16; D'Orb. Voy. Ois. p. t. 8, f. 1: *Leptonyx tarnii*, D'Orb. Voy. p. 198: *Pteroptochus tarnii*, Darwin, Voy. Beagle, Zool. iii. p. 70.

Hab. Island of Chiloe and Port Otway, Gulf of Penas (*King*); Western Chili from Concepcion to the Peninsula of Tres Montes (*Darwin*); Valdivia (*D'Orbigny*).

2. *HYLACTES CASTANEUS* (Plate XIX).

Hab. Province of Colchagua, alt. 5000 ft. (*Philippi & Landbeck*).

3. *HYLACTES MEGAPODIUS*.

Pteroptochus megapodius, Kittl. Mém. prés. Acad. Pétersb. 1831, p. 182, t. 4: Darwin, Voy. Beagle, Zool. iii. p. 71, Sci. Cat. Am. B. p. 169: *Megalonyx rufus*, Less. Cent. Zool. t. 66; Lafr. et D'Orb. Syn. Av. 1, p. 17: *Leptonyx macropus*, Sw. Zool. Ill. 2nd Ser. t. 117; D'Orb. Voy. Ois. p. 197: *Hylactes megapodius*, Gray, Gen. of B. 1, p. 154; Cab. et Hein. Mus. Hein. ii. p. 21.

Hab. Central and Northern Chili (*Darwin*): environs of Valparaiso (*D'Orbigny*).

AUGUST, 1867.

Ex Orn

Plate XXX.



Great Ill.

313

ÆDIDNEMUS SUPERCILIARIS.

M. & N. Hanhart imp.

PLATE XXX.

ÆDICNEMUS SUPERCILIARIS.

(PERUVIAN THICK-KNEE).

Ædicnemus superciliaris . . . Tsch. Wieg. Arch. 1843, I. p. 387, et Faun. Per. pp. 49, 293.

Suprà griseus, fusco marmoratus, loris, capitis lateribus et superciliis latis albis, his strigâ nigrâ supra et subtus marginatis: alarum remigibus externè nigris, intus albis, apicibus omninò nigricantibus: rectricibus albis, griseo transfasciatis, apicibus latè nigris: subtus albus, pectore fuscescente, cinereo irrorato: crisso fulvescente tincto: rostro nigro, basi olivaceo, pedibus olivaceis: long. tota 1·3, alæ 8·5, caudæ 5·0, rostri a rictu 1·8, tarsi 3·5.

Hab. in Peruvîâ occidentali.

This little-known Thick-knee varies considerably from the normal colouring of its congeners, and more nearly resembles one of the allied genus *Esacus* in general external appearance. It is, nevertheless, a typical *Ædicnemus* in form, and of great interest as forming a second American species of this widely diffused group.

The Peruvian Thick-knee was discovered by Tschudi, in the western coast-region of Peru, north of Lima, near the Port of Huacho, and fully described in his well-known Fauna Peruana. Although Tschudi states positively that it is different from *Ædicnemus vocifer* (*Æ. bistriatus*, Wagler) no other succeeding writer has been content to recognize it: both Gray* and Schlegel† considering it to be the same as Wagler's species. The points of difference between the two birds are, however, very obvious on comparison. *Ædicnemus superciliaris* is a smaller species than *Æ. bistriatus*. Its ground-colour above is grey instead of dark brownish black, and the markings are less defined and much more minute. It has, likewise, a well-defined black stripe beneath the prolonged white superciliary mark, which is not found in the allied species. There are, besides, many other differences, which we need not enlarge upon.

Our figure of this fine species is taken from a specimen, not quite adult, in Messrs. Salvin and Godman's collection, labelled as having been killed in the valley of the Rimac, near Lima. It is the only example of this bird we have yet met with.

* Gen. of B. App. p. 25.

† Mus. d. P. B. *Cursores*, p. 19.

The two American species of *Edicnemus* will stand as follows:—

1. *EDICNEMUS BISTRIATUS*.

Charadrius bistriatus, Wagler, Isis, 1829, p. 648.—*Edicnemus bistriatus*, Gray's Gen. iii. p. 535; Cab. in Schomb. Guian. iii. p. 749.—Owen, Ibis, 1861, p. 67; Salvin, Ibis, 1861, p. 356; Selater, P.Z.S. 1865, p. 397; Schlegel, Mus. d. P.B. *Cursores*, p. 19.—*Edicnemus vocifer*, L'Herm. Mag. de Zool. 1837, cl. ii. t. 84.—*Æ. americanus*, Sw. An. in Men. p. 349.—“*Æ. mexicanus* Licht.” (teste Schlegel.).

Hab. Mexico (*Wagler*): Vera Cruz (*Boucard*): Guatemala, Plains of Salamà and Huamuchal (*Salvin*): Honduras (*Taylor*): New Granada, Bogota (*Mus. Brit.*): Venezuela, province of Cumana (*L'Herm.*): Guiana (*Schomb.*): Rio Branco, Northern Brazil (*Natterer* in *Mus. Vindob.*).

2. *EDICNEMUS SUPERCILIARIS* (Plate XXX).

Hab. Coast-region of Western Peru.

AUGUST, 1867.



J Smit lith.

M & N Hanhart imp

LANIO AURANTIUS.

PLATE XXXI.

LANIO AURANTIUS.

(ORANGE LANIO).

<i>Lanio aurantius</i>	.	.	Lafr. Rev. Zool. 1846, p. 204.
"	"	.	Bp. Consp. p. 241.
"	"	.	Gray, Gen. of B. App. p. 16.
"	"	.	Du Bus, Esquiss. Orn. t. xxi.
"	"	.	Sclater, P.Z.S. 1856, pp. 119, 303 ; 1857, p. 229, et Cat. A. B. p. 83.
"	"	.	Sclat. et Salv. Ibis, 1859, p. 15.

Flavissimus, pectore ferrugineo tincto : capite toto cum gutture alis et caudâ nigris : tectricibus alarum minoribus et subalaribus albis : rostro et pedibus nigris : long. totâ 8.0, alæ 4.3, caudâ 3.8.—*Fœm.* supra brunnea, uropygio flavicante, capite cinerascens ; subtus olivaceo-flava, gutture cinereo, crisso fulvo tincto ; alis et caudâ fuscis.

Hab. in Mexico Meridionali et Guatemalâ.

This finely-coloured species of *Lanio* was first made known by the late Baron de la Fresnaye, in one of his numerous ornithological articles contributed to the *Revue Zoologique*. Lafresnaye was, however, in error as to its *patria*, which he gives as "Columbia." In Selater's "Synopsis of the Tanagridæ, published in the Zoological Society's Proceedings" for 1856, this mistake was corrected upon the faith of specimens collected in Honduras by Dyson, and in Southern Mexico by Sallé. The range of this *Lanio* is, in fact, confined to the Central American Isthmus north of Costa Rica, in which country its place is taken by the allied *Lanio leucothorax*. Besides M. Sallé's specimens from Orizaba already alluded to, M. Boucard obtained examples at Santecomapam, in the State of Vera Cruz, in March, 1857; and we have seen it in other collections from Southern Mexico. In Guatemala Mr. Salvin found it abundant in the forests of Northern Vera Paz. South of this we have no record of its existence, though it may probably extend into Honduras and Nicaragua.

The Tanagers of the genus *Lanio* are strict denizens of the virgin forests of Neotropical America. Mr. Salvin met with this species during his excursions into the lower wood-region of Vera Paz in the beginning of 1862, and observed it always amongst the lower branches of the higher trees. In this situation it is usually met with in pairs, associating with such fruit-loving birds as *Pitylus polioaster*, *Euphonia hirundinacea*, and *Tanagra diaconus*, and subsisting principally upon the same diet.

Since the plate representing this species was prepared, we have discovered that the bird has already been figured in one of the later livraisons of Du Bus' "Esquisses Ornithologiques", of which the text has never appeared. We are not sure that these livraisons were ever formally published, but, even if this should have been the case, they are so little known that a second figure of this beautiful species may not be deemed undesirable.

Our figure of the male of this bird is taken from one of M. Boucard's specimens above referred to, that of the female from one of Mr. Salvin's Guatemalan skins. Both of them are in Mr. Sclater's collection.

AUGUST, 1867.



PLATE XXXII.

LANIO LEUCOTHORAX.

(WHITE-THROATED LANIO).

<i>Lanio leucothorax</i>	.	.	.	Salvin, P.Z.S. 1864, p. 581, et 1867, p. 139.
"	"	.	.	Cassin, Proc. Acad. Phil. 1865, p. 171.

Flavissimus : capite toto, mento summo, alis et caudâ cum dorso postico nigris : tectricibus alarum minoribus et subalaribus albis : gutture et pectore summo albicantibus : crisso nigro, flavo variegato : rostro et pedibus nigris : long. totâ 7·8, alæ 4·2, caudæ 3·8.—*Fœm.* supra ochraceo-brunnea, uropygio dilutiore : capite brunnescente : subtus ochracea, ventre medio flavo : gutture pallidè brunneo.

Hab. in Costa-Ricâ et Veraguâ.

The portion of the great Central American Isthmus occupied by the Republic of Costa Rica and the adjacent Province of Veragua is the seat of a peculiar fauna, which contains many very remarkable forms. The most striking of these are the wonderful Bell-bird with three caruncles (*Chasmorhynchus tricarunculatus*), and the bare-throated Umbrella-bird (*Cephalopterus glabricollis*). A number of very beautiful and peculiar Humming-birds are also found in this district, of which *Panterpe insignis*, *Microchera albicoronata*, and several species of *Oreopyra* stand pre-eminent. Other groups are well represented by distinct species, and even in some cases by peculiar genera. Amongst the former, the bird we now figure is one of the most beautiful as well as interesting for the marked features of its specific characters.

The first specimens of this bird were obtained for Messrs. Salvin and Godman by Enrique Arcé, near Tucuriqui, a village of Costa Rica, situated in a small plain surrounded by hills on the eastern slope of the Cordillera, and at an elevation of about 3000 feet above the sea level. These were described by Mr. Salvin in the "Proceedings of the Zoological Society" for 1864. Other examples were subsequently obtained for the Smithsonian Institution by J. Carmiol, at the villages of Angostura and Payariqui in Costa Rica, as recorded by Mr. Cassin. During his subsequent expeditions in Veragua Arcé appears to have frequently met with this bird, as specimens were included in each of his collections sent from the villages of Santa Fé and Santiago, as well as from the Cordillera of Tolé. Southward of Santa Fé no specimen has been hitherto encountered, the species being as yet unknown on the Isthmus at Panama, nor have any of the collectors who have visited districts immediately to the south met with it. To the northward of Costa Rica it is equally unknown, so we may fairly presume that this fine bird is restricted in its range to the above-mentioned localities.

Our figures are taken from specimens collected by Arcé, the male at Santa Fé in Veragua and the female from Tucuriqui, both now forming part of Messrs. Salvin and Godman's collections.

The following are the known species of this genus:—

1. LANIO ATRICAPILLUS.

Tanagra atricapilla, Gm. (ex Buff. Pl. Enl. 809, fig. 2.)—*Lanio atricapillus*, Vieill. N.D. xxii. p. 305, Enc. Méth. p. 741 et Gal. Ois. t. 138; Bp. Consp. i. p. 240; Sclater, P.Z.S. 1855, p. 156; 1856, p. 118; 1858, pp. 72, 454; Cat. A. B. p. 83.—*Pogonothraupis atricapilla*, Cab. in Schomb. Guian. iii. p. 669.

Hab. Cayenne (*Buffon*); Brit. Guiana (*Schomb.*); New Granada, Bogota, (*Mus. P.L.S.*); Ecuador, Napo (*Mus. P.L.S.*), Gualaquiza (*Fraser*).

2. LANIO VERSICOLOR.

Tachyphonus versicolor, Lafr. et D'Orb. Syn. Av. 1837, p. 28.—*Pyranga versicolor*, D'Orb. Voy. p. 262, t. 19, fig. 1.—*Lanio versicolor*, Lafr. Rev. Zool. 1846, p. 253; Gray, Gen. of B. p. 364; Bp. Consp. p. 240; Sclater, P.Z.S. 1856, p. 119.

Hab. Bolivia, forests of Yuracares (*D'Orbigny*).

3. LANIO AURANTIUS (Plate XXXI).

Hab. Southern Mexico, prov. of Vera Cruz (*Sallé and Boucard*); Guatemala, forests of Vera Paz (*Salvin*).

4. LANIO LEUCOTHORAX (Plate XXXII).

Hab. Costa Rica, Tucuriqui (*Arcé*), Angostura and Payariqui (*Carmirol*); Veragua (*Arcé*).

AUGUST, 1867.



PLATE XXXIII.

TACHYPHONUS PHÆNICEUS.

(RED-SHOULDERED TACHYPHONE).

<i>Tachyphonus phæniceus</i>	.	.	.	Sw. An. in Men. p. 311.
"	"	.	.	Bp. Consp. 1, p. 237.
"	"	.	.	Sclater, P.Z.S. 1856, p. 116.
"	"	.	.	Scl. et Salv. P.Z.S. 1867, p. 754.
<i>Tachyphonus saucius</i>	.	.	.	Strickl. Ann. N. H. xiii. p. 419.
<i>Tachyphonus leucocampter</i>	.	.	.	Licht. in Mus. Berol.

Chalybeo-ater: tectricibus alarum minoribus superioribus albis, maculâ in campterio rubrâ, inferioribus omnino albis: rostro nigro, mandibulâ albo notatâ: pedibus nigris: long. tota 6·3, alæ 2·9, caudæ 2·6.—*Fœm.* Obscurè schistacea, dorso olivaceo tincto: alis caudâque nigricantibus, illarum marginibus brunnescenti-olivaceis: subtus fulva, schistaceo perfusa.

Hab. Brasil. int. Borba (*Natt.*): Peruv. orient. Xeberos (*Bartlett*).

In the second portion of his volume on "Animals in Menageries," which is devoted to the description of new birds, Mr. Swainson shortly characterizes the present well-marked species of *Tachyphonus*, from a specimen "in the collection of Mr. Horsfield of Everton, near Liverpool, who believes it came from Fernando Po on the African coast." Mr. Swainson does not, however, scruple to cast doubt upon this locality, observing that "if this is truly African, it is a solitary exception to the strict geographic range of the whole family of Tanagers." Mr. Swainson's criticism was well founded, for, as is now well known, the true home of this *Tachyphonus*, as of the rest of its congeners, is the New World, and not the Old. Examples of it were obtained by the indefatigable Natterer, in the vicinity of Borba on the lower course of the Madeira river, and more recently by Mr. E. Bartlett, at Xeberos in Eastern Peru, so that it probably has a wide range in the interior of the great Amazonian wood-region.

The peculiar colouring of this species of Tachyphone renders it easily distinguishable, the blood-red humeral spot being unique in the genus. It is likewise remarkable for possessing rather a shorter and stouter bill than other birds of the same group. The somewhat dissimilar male and female are clearly shewn to be connected by a young male specimen in transition-plumage, in Sclater's collection.

In 1844, the late Mr. Strickland described this species from a specimen in his own collection, under the name *Tachyphonus saucius*. It has likewise received the MS. name *leucocampter* in the Berlin Museum.

Our figures are taken from skins in Sclater's collection, obtained, together with the young male above-mentioned, by Mr. E. Bartlett, at Xeberos, in 1866.

DECEMBER, 1867.



J. Smit, lith.

M & N Harcourt imp

TACHYPHONUS DELATRII.

PLATE XXXIV.

TACHYPHONUS DELATTRI.

(DELATTRE'S TACHYPHONE).

<i>Tachyphonus delatirii</i>	.	.	.	Lafr. Rev. Zool. 1847, p. 72.
"	"	.	.	Bp. Consp. 1, p. 237.
"	"	.	.	Scl. P.Z.S. 1856, p. 116, et 1859, p. 139.
"	"	.	.	Cassin, Pr. Acad. Phil. 1860, p. 142.
"	"	.	.	Lawr. Ann. Lyc. N. Y. vii. p. 331.
"	"	.	.	Scl. et Salv. P.Z.S. 1864, p. 351.
"	"	.	.	Salv. P.Z.S. 1867, p. 140.
"	"	.	.	Cassin, Pr. Ac. Sc. Phil. 1865, p. 171.

Nigerrimus, cristâ aurantiacâ : rostro et pedibus nigris : long. tota 5.5, alæ 3.0, caudæ 2.6. *Fæm.* brunnea unicolor, subtùs dilutior.

Hab. Resp. Æquator. Pallatanga (*Fraser*): Nova Granada occ. R. Truando (*Michler*); S. Buenaventura (*Delattre*); Gorgona (*Kellett*, in Mus. Brit.): Isthmus of Panama (*McLeannan*): Veragua (*Arcé*): Costa Rica (*Carmirol*).

The late M. Delattre, a French collector well known for many successful excursions into the forests of South America, was the discoverer of this *Tachyphonus*, which was named after him by Lafresnaye. M. Delattre's specimens were obtained at S. Buenaventura, on the western coast of New Granada, and examples from Gorgona in the same neighbourhood, procured by Capt. Kellett, are in the British Museum. The bird appears to extend further south, along the densely wooded coast-region into the republic of Ecuador, Mr. Fraser having transmitted a single female of this species from the vicinity of Pallatanga.

Mr. C. J. Wood met with a flock of this Tanager on the Rio Truando, during the Darien Survey under Lieut. Michler, as recorded by Mr. Cassin. Mr. Wood says that the species was only once seen in the bushes on the banks of that river in the month of March.—“About twenty were in company, and several were obtained, although they were very shy and not easily approached. They appeared to be feeding upon a berry which was abundant.”

Proceeding northwards, Delattre's Tachyphone appears to be not uncommon on the Isthmus of Panama. Mr. McLeannan met with it in the vicinity of his station on the Railway, and has supplied both European and American collectors with specimens from that locality. Mr. McLeannan notes the irides of the male as *red*, and those of the female as *brown*.*

* Ann. Lyc. N. Y. vii. p. 331.

Two still more northern localities for this bird are Veragua, whence Arcé has sent examples, which are now in the collection of Messrs. Salvin and Godman; and Costa Rica, where specimens were obtained by Mr. J. Carmiol, in March 1865, as has been recorded by Mr. Cassin.

Our figures of this species are taken from specimens in Sclater's collection; the male having been obtained by McLeannan at Panama and the female by Mr. Fraser at Pallatanga.

Eleven well characterized species of *Tachyphonus* are at present known to us, which may be arranged as follows:—

Sect. A. *Tachyphoni non-cristati*.

a. uropygio dorsoque nigris concoloribus.

1. *T. melaleucus*, ex Panama, et Americ. Merid. Orient. usque ad Paraguay.
2. *T. luctuosus*, ex ins. Trinit., Venezuela, Nov. Granada, Panama, Æquat., Peruvia Orient. et Bolivia int.
3. *T. phæniceus*, ex Peruv. Orient. et Brasil int.

b. uropygio flavo.

4. *T. xanthopygius*, ex Nova Granada.
5. *T. rubrifrons*, ex Panama.

Sect. B. *Tachyphoni cristati*.

a. uropygio dorsoque discoloribus.

6. *T. cristatus*, ex Brasil. Orient.
7. *T. cristatellus*, ex Amazonia, et Nov. Granada.
8. *T. surinamus*, ex Guiana, et Amazonia.
9. *T. rufventris*, ex Peruv. Orient.

b. uropygio dorsoque concoloribus.

10. *T. coronatus*, ex Brasil. Merid. et Paraguay.
11. *T. delatirii*, ex Nov. Granada, Æquat. occ., isthmo Panama et Costa Rica.

The synonymy of these species is mostly given in Sclater's American Catalogue.—*T. rubrifrons* (Lawr. Pr. Ac. Phil. 1865, p. 106), is a newly described species, of which we have, as yet, seen only a single female specimen.

DECEMBER, 1867.



J. Smit del.

M & N Hanhart imp

XIPHOCOLAPTES EMIGRANS.

PLATE XXXV.

XIPHOCOLAPTES EMIGRANS.

(NORTHERN WOOD-HEWER).

<i>Xiphocolaptes emigrans</i>	.	.	.	Scl. et Salv. Ibis, 1859, p. 118.
"	"	.	.	Scl. Cat. Am. Birds, p. 163.
"	"	.	.	Cab. et Hein. Mus. Hein. ii. p. 36.
<i>Xiphocolaptes albicollis</i>	.	.	.	Scl. P.Z.S. 1857, p. 202.—(err.).

Olivaceo-brunneus, dorso inferiore alis extus et caudâ totâ rubiginoso-rufis: capitis et colli superioris plumarum rachidibus lineis albis notatis: subtus olivaceo-brunneus, gutture medio albicante; gutturis lateribus et pectore albo strigatis; hypochondriis rubiginoso perfusis: rostro albicante, basi obscuriore; pedibus obscurè corneis: long. tota 12·5, alæ 5·5, caudæ 4·6, rostri a rictu lin. dir. 2·3.

Hab. Mexico merid. Jalapa, (*Sallé*): Guatemala, Vera Paz, (*Salvin*).

Obs. Similis *X. albicollis*, sed rostro majore albo, et ventre non transfasciato dignoscendus.

The first specimens of this fine species transmitted to Europe, were, as far as we know, those collected by M. Sallé in the vicinity of Jalapa, as recorded by Sclater, in one of his papers on Mexican Birds, published in the Zoological Society's "Proceedings" for 1857, as above quoted. Although recognizing its apparent distinctness from its southern ally, Sclater hesitated to describe it at that period, and it was only upon receipt of further specimens from Guatemala that he became convinced of the necessity of giving it a specific designation. This was done in our joint article upon the Ornithology of Central America, in the "Ibis" for 1859. There can, indeed, be no question, upon comparing a series of skins of this bird and of *X. albicollis*, of their essential differences. A third species—*X. procerus*, of Venezuela, is intermediate in character as in locality, but appears likewise different from either of its congeners.

During Salvin's later visits to Guatemala this bird was personally observed, and specimens of it obtained on two occasions. The first was in December 1859, in the mountain-forest above the village of San Geronimo, Vera Paz; the second in March 1862, in the pine-ridges of Poctun, a village on the track leading from Vera Paz to Peten. On each occasion the bird was observed on the trunks of the larger trees, to which it clings just like a Woodpecker and ascends rapidly to the summit. When pursued, it takes short flights of about one hundred yards or so to another tree, alighting on it near its base and again ascending to the top of its stem, whence another flight is taken. The species does not appear to be common, as none of Salvin's collectors succeeded in obtaining specimens of it.

Our figure of this bird is taken from a Guatemalan skin in Sclater's collection,—received through the late Mr. G. U. Skinner.

Ex. Orn.

Plate XXXVI.



J. Smit lith.

M & N Hazenart imp

XIPHOCOLAPTES MAJOR.

PLATE XXXVI.

XIPHOCOLAPTES MAJOR.

(RUSTY WOOD-HEWER).

<i>Trepador grande</i>	.	.	.	Azara, Pax. ii. p. 277—(undè),
<i>Dendrocopus major</i>	.	.	.	Vieill. Nouv. Dict. xxvi. p. 118, et Enc. Méth. p. 625.
<i>Dendrocolaptes major</i>	.	.	.	Lafr. et D'Orb. Syn. Av. ii. p. 11.
"	"	.	.	Hartl. Ind. Az. p. 16.
"	"	.	.	Bp. Consp. i. p. 207.
"	"	.	.	Lafr. Rev. Zool. 1850, p. 103.
<i>Xiphocolaptes major</i>	.	.	.	Scl. Cat. Am. Birds, p. 164.
<i>Dendrocolaptes rubiginosus</i>	.	.	.	Lafr. Mag. de Zool. 1833, t. 16.

Rubiginosus ferè unicolor: gutture fuscescentiore: capite et collo superiore et pectore strigis rachidum albidis obsoletè notatis: rostro albido, pedibus obscurè corneis: long. tota 11·5, alæ 5·5, caudæ 4·3, rostri a rictu lin. dir. 2·2.—Fœm. mari similis.

Hab. Paraguay (Azara): Bolivia, Chiquitos (D'Orb.).

Azara first made us acquainted with this strongly-marked *Xiphocolaptes*, having described it in his well-known "Apuntamientos para la historia natural de los paxaros del Paraguay" under the Spanish name "Trepador grande,"—afterwards latinized by Vieillot into *Dendrocopus major*. Azara states that this species is found on the high open trees at the edges of the forests of Paraguay, singly or in pairs, and that there is no observable difference between the sexes.

The only other Naturalist that appears to have met with this bird in its native wilds, is the French traveller, Alcide d'Orbigny, who obtained specimens of it in the province of Chiquitos in Bolivia.

In 1833, Lafresnaye described this bird in the "Magasin de Zoologie," as *Dendrocolaptes rubiginosus*, and gave an indifferent figure of it; but subsequently allowed it to be without doubt the same as Azara's species.*

The Rusty Wood-hewer is readily distinguishable from every other species of the genus by its nearly uniform rusty-red plumage, and pale white bill. There are linear elongated shaft-stripes on the head and on portions of the under plumage.

Our figure is taken from a specimen in Sclater's collection, believed to be from Bolivia.

* Cf. Syn. Av. ii. p. 11, et Rev. Zool. 1850, p. 183.

There are five well-marked species of this genus, each of which appears to inhabit a different region, namely :—

a. Sp. ventre transfasciato : rostro nigricante.

1. *X. albicollis* (Vieill.) of S. E. Brazil.
2. *X. promeropirhynchus* (Less.) of New Granada, Ecuador, Peru and Bolivia.

b. Sp. ventre concolore : rostro albicante.

3. *X. procerus*, Cab. et Hein. of Venezuela.
4. *X. emigrans*, Scl. et Salv. of Mexico and Guatemala.
5. *X. major* (Vieill.) of Paraguay and Bolivia.

For the synonymy of these birds we refer our readers to Selater's American Catalogue. *Dendrocolaptes perroti*, of Lafresnaye, which has been hitherto placed in this genus, is very aberrant in the shape of its bill, and may, we now think, be better arranged along with *Dendrocolaptes temmincki*, Lafr., in the genus *Dendrexetastes*, Eyton.

DECEMBER, 1867.

Ex Orn.

Plate XXXVII



J. Smit lith.

M & N Hanhart imp

ACCIPITER CHILENSIS.

PLATE XXXVII.

ACCIPITER CHILENSIS.

(CHILIAN SPARROW-HAWK).

<i>Accipiter chilensis</i>	.	.	.	Phil. et Landb., Wieg. Arch. 1864, p. 43.
"	"	"	"	Scl. P.Z.S. 1867, p. 329.
<i>Accipiter cooperi</i>	.	.	.	Pelz. Novara-Reise, Vög. p. 13.

Suprà fumido-niger, pileo nigricante: subtùs ex rufescente cinereus, albo maculatus; his maculis utrinque nigro marginatis: tibiis ferrugineo-rufis: subalaribus rufis nigro punctatis: caudâ suprà fumido-nigrâ, subtùs albescenti-cinereâ, quinquies nigro-vittatâ: rostro nigro, pedibus flavis: long. tota 17·5, alæ 9·5, caudæ 7·5, tarsi 3·0.—*Avis jr.* Plumis suprà fusco marginatis, subtùs albus nigro guttatus, tibiis albidis, nigro maculatis.

Hab. Chili (*Phil. et Landb.*): Magellan-straits (*King*).

The Chilian Sparrow-hawk appears to have been always passed over unrecognized, and confounded with its allies *Accipiter pileatus* and *A. cooperi*, until it was described by Messrs. Philippi and Landbeck in 1864. Aided by their accurate diagnoses of the various plumages, we had no difficulty in finding specimens of it in the rich stores of the National Collection, where they had been previously treated as forms of *A. pileatus*. We believe, however, that there is no question as to the constancy of the differential characters of the Chilian bird, and we have great pleasure in giving the first representation of it, under the name bestowed upon it by Messrs. Philippi and Landbeck.

On reference to our plate, the differences between the adult plumages of *A. chilensis* and *A. pileatus* as figured in Temminck's Planche Colorée 205 will be at once manifest. In the latter, the under plumage is of a nearly uniform brownish cinereous. In *A. chilensis* the plumage beneath is thickly barred with white, and these white bars are in turn narrowly bordered with black. The immature plumages of the two birds may not in all cases be so easily distinguishable, nor have we at present materials sufficient to enable us to point out the differences accurately. But, if our identification of the young birds in the British Museum is correct, the young *A. pileatus* is the bird figured by Temminck (Pl. Col. 295) as the young of *A. poliogaster*, and differs from the young of *A. chilensis* in being unspotted in the middle of the belly, and more tinged with rufous below.

The Chilian Sparrow-hawk, as we are informed by Messrs. Philippi and Landbeck, inhabits the greater part of Chili; at least, it has been noticed by these Naturalists from the Province

of Aconcagua in the North down to Chiloe; but is commonest in the neighbourhood of the city of Valdivia. In Southern Chili it keeps to the edges of the forests. In the central provinces it is found on the lower outlyers of the Cordilleras, and among the bushy woods intermixed with larger trees, often approaching the settlements in pursuit of small birds, pigeons, and fowls. It is fond of selecting the lofty summit of a dead tree as a resting-place, and descends thence quickly on its victim, carrying it off to a quiet place to be devoured. Females of this species were twice shot by Messrs. Philippi and Landbeck near Valdivia in the act of robbing the hen-roosts.

The nidification of *A. chilensis* is said to resemble that of the European *A. nissus*, but Messrs. Philippi and Landbeck have not yet succeeded in obtaining specimens of the eggs.

Our figures of this bird are taken from specimens now in the British Museum, which were formerly in the Zoological Society's Museum, and were collected by Captain King in the Straits of Magellan. The front figure is reduced to two-thirds of the natural size.

DECEMBER, 1867.

Exc. Orn.

Plate .XXXVIII.



J. Smit lith.

M&N Hanhart, imp.

LEUCOPTERNIS SUPERCILIARIS.

PLATE XXXVIII.

LEUCOPTERNIS SUPERCILIARIS.

(KAUP'S BUZZARD).

<i>Leucopternis superciliaris</i>	.	.	.	Pelz. Sitz. Ak. Wien xlv. p. 10, et Orn. Bras. p. 3.
"	"	.	"	Scl. et Salv. P.Z.S. 1867, p. 589.
<i>Leucopternis Kuhl</i>	.	.	.	Bp. Consp. i. p. 19 (?)
<i>Buteo Kaup</i>	.	.	.	G. R. Gray, in Mus. Brit. (<i>undè</i>),
<i>Leucopternis Kaup</i>	.	.	.	Bp. Rev. Zool. 1850, p. 481.

Fumido-niger nuchâ et cervice posticâ albo variegatis : strigâ superciliari albâ : subtus albus, cervice laterali nigro striatâ : caudâ nigrâ, albo vittatâ et angustè terminatâ : rostro nigro, cerâ flavâ ; pedibus flavis, unguibus nigris : long. tota 14.0, alæ 8.0, caudæ 6.0, tarsi 2.5.

Hab. Brasil. bor., Para. (*Wallace*): Borba (*Natt.*).

The late Prince Charles Bonaparte, who had an unhappy trick of publishing new names for birds without any descriptions attached to them or with diagnoses so short as to leave them practicably unrecognizable, appears to have twice essayed to bestow a specific designation upon the present Buzzard. In his "Conspectus," "*Leucopternis Kuhl*," characterized as "*similis præcedenti*, (i.e. *L. melanopi*) *sed capite nigricante, unguibus albis*," is probably intended for the present bird, as we know of no other species to which the phrase would be suitable. In some cursory notes upon the Rapacious Birds contributed to the *Revue de Zoologie* for 1850 a new species is again somewhat similarly described* as "*Leucopternis Kaup*." But in this case we have been able positively to identify the bird, by reference to the marked specimens of it in the British Museum.

We cannot, however, think that it would be right to supersede in favour of either of these names, Herr von Pelzel's term *superciliaris*, which, although published subsequently, is accompanied by a full and excellent description.

Natterer, upon whose specimens v. Pelzel founds his species, obtained three examples of this Buzzard in Northern Brazil; at Borba on the Madeira, and at Para. At the latter locality Mr. Wallace also procured a single specimen, which he has kindly loaned to us for the purpose of the present work. Our figure represents this bird at a reduction of two-thirds of its natural size.

* Semblable au *L. melanops*, mais à tête noire et à ongles blancs, *l. c.* p. 481.



J. Smit. del.

M&N Harriet imp.

GEOTRYGON CHIRIQUENSIS. *is albifacies, Long.*

PLATE XXXIX.

GEOTRYGON CHIRIQUENSIS.

This is G. albifacies, Gray - see Exot. Orn. Part VIII.

(WHITE-FACED GROUND-PIGEON).

<i>Geotrygon chiriquensis</i>	. . . . .	Slater, P.Z.S. 1856, p. 143 et 1857, p. 206.
" "	. . . . .	Bp. C. R. xliii. p. 943 (1856).
<i>Peristera mexicana</i>	. . . . .	G. R. Gray, List of Spec. in B. M. iii. p. 15 (1844).
<i>Peristera albifacies</i>	. . . . .	G. R. Gray, List of Spec. of Columbæ, in B. M. p. 55 (1856).
<i>Geotrygon albifacies</i>	. . . . .	Sl. et Salv. Ibis, 1860, p. 401.

Supra castaneo-brunneus, interscapulio purpurascens; pileo summo cœrulescenti-griseo, facie totâ albicante: subtus grisescenti-cinnamomeus, gulâ et ventre medio lactescenti-albis: gutturi plumis angustatis, colorem plumarum inferiorem obscurum ostendentibus; remigibus alarum subtus obscuré schistaceis; tectricibus subalaribus saturaté cinnamomeis; caudâ supra dorso ferè concolore, subtus plumbescente tinctâ, apice brunnescentiore: rostro nigro pedibus rubellis: long. tota 11.5, alæ 6.2, caudæ 3.7, tarsi 1.6.—*Æm.* mari similis, sed paulo minor.

Hab. Chiriqui (*Bridges*): Guatemala (*Salvin*): Mexico, merid. Jalapa (*Sallé*).

In the year 1856 Slater described a species of *Geotrygon*, which formed part of a small collection of birds made by the late Mr. Bridges, in the vicinity of the town of David, in Chiriqui, and subsequently recognized the same bird in one of M. Sallé's collections from S. Mexico.

Both of these specimens were unfortunately lost sight of, and when the bird was afterwards obtained in Guatemala by Salvin, the name *albifacies*, taken from Mr. G. R. Gray's MS. in the British Museum, was applied to it. Other elements of confusion were introduced into the nomenclature of this species by Slater having described in the "Proceedings" of the Zoological Society for 1858 *Leptoptila albifrons* under the name *Geotrygon albifacies*, and by Prince Bonaparte having, in one of his fugitive papers, published in the "Comptes Rendus," miswritten Mr. Gray's manuscript name of the present bird "*albifrons*."

We trust that the accompanying figure of this well-marked species will prevent further errors on the subject.

Geotrygon chiriquensis appears to be widely distributed throughout Central America, from Chiriqui to Jalapa in Mexico. We have already mentioned the authorities for its occurrence at these extreme limits of its range, as at present known to us. In Guatemala, Messrs. Salvin and Godman met with it abundantly in the forests of the eastern slope of the Volcan de Fuego, at an elevation of from 6000 to 7000 feet, though it is also occasionally met with

lower down. It is a strictly forest bird, being usually observed on the ground amongst the dead leaves and thin brush-wood, where the highest trees grow. When disturbed it takes a short flight and settles again upon the ground. Its flesh is excellent, and renders the bird an object of eager pursuit to the Indian hunters of Dueñas. The species also occurs in Vera Paz, one of Salvin's hunters having procured a single specimen near Choctum, which is referred to in the "Ibis" for 1860, as *Geotrygon albifacies*.

Our figure of this Pigeon, three-fourths of the natural size, is taken from a specimen in the collection of Messrs. Salvin and Godman, which was obtained at Savana Grande below the village of Alotenango, in Guatemala, in September 1862.

Besides the present species, the only other member of the genus found on the Continent north of the Isthmus of Panama that we are acquainted with is *Geotrygon montana* (Linn.), which is common in Guatemala and occurs as far north as Southern Mexico. We have not yet been fortunate enough to meet with either of the species described by Mr. Lawrence as *G. albiventris* (Proc. Ac. Phil. 1865, p. 106) from Panama, and *G. veraguensis* (Ann. Lyc. N. Y. viii. June 1866) from Veragua.

DECEMBER, 1867.



J. Smits luh.

GEOTRYCON BOURCIERI.

M&N Hazenart imp

PLATE XL.

GEOTRYGON BOURCIERI.

(BOURCIER'S GROUND-PIGEON).

<i>Geotrygon bourcieri</i>	Bp. Consp. ii. p. 71, (1857).
" "	Scl. P.Z.S. 1860, p. 72.
<i>Peristera erythropareia</i>	G. R. Gray, List of Spec. of Colombæ in Brit. Mus. (1856).

Suprà brunnea, interscapulio violaceo tincto: nuchâ cœrulescenti-griseâ, fronte et capitis lateribus pallidè rufis: lineâ rictali nigrâ: subtùs dilutior, plumbeo lavata, gulâ albicante, ventre medio pallidiore: alis subtùs plumbeo-nigricantibus: rostro nigro, pedibus rubris: long. tota 12·5, alæ 6·2, caudæ 4·0, tarsi 1·6.

Hab. Ecuador, Valley of Lloa (*Bourcier*): Pallatanga (*Fraser*).

Obs. Similis *G. lineari*, sed genis rufis et corpore subtus fuscescentiore.

This *Geotrygon* was first described by Prince Bonaparte in the second part of his "Conspectus" from specimens obtained by M. Bourcier in the valley of Lloa in Ecuador, and dedicated to its discoverer. It had, however, previously received the manuscript name *erythropareia* in the British Museum, and is thus designated by Mr. G. R. Gray in his list of Columbæ, although no characters accompany the proposed new name.

During his sojourn at Pallatanga, in 1858, Mr. Fraser obtained many specimens of a *Geotrygon*, which we believe to have belonged to this species, although they have been dispersed, and are now beyond our reach, so that we cannot identify them positively. Mr. Fraser notes the bill as black, and the "legs in front and toes above red." The bird was found on the ground, and the food ascertained to be "fruit, and in one instance grasshoppers."

Our figure is taken from the specimen in the British Museum, which forms the type of Mr. Gray's *Peristera erythropareia*, and which was acquired by purchase of M. Verreaux in 1855.

Several other species of *Geotrygon* occur on the southern continent of America besides the present.—These are, as far as we are acquainted with them,—

1. *G. linearis* (Knip et Prév.): Knip. Fig. ii. t. 55, from New Granada.
2. *G. montana* (Linn.), widely spread over S. America.—Chamicurros, E. Peru (*Hauzwell*): S. E. Brazil (*Max. et Burm.*): Paraguay (*Azara*).
3. *G. violacea* (Temm.), Brazil, Bahia (*Mus. Brit.*).

We have not yet met with examples of *G. frenata* (Tsch.) or *G. melancholica* (Tsch.).

DECEMBER, 1867.



J. Smit lith.

M. & N. Hamhart imp.

Fig 1. CHOLOROPHONIA FRONTALIS.
2. ----- LONGIPENNIS.

PLATE XLI. (Fig. 1.)

CHLOROPHONIA FRONTALIS.

(YELLOW-FRONTED CHLOROPHONE).

<i>Euphonia frontalis</i>	. . . . .	Sclater, Contr. Orn. 1851, p. 89.
<i>Chlorophonia frontalis</i>	. . . . .	Sclater, P.Z.S. 1856, p. 270, et Cat. Am. Birds, p. 55.

Clarè viridis, cervice posticâ oculorum ambitu et dorso postico toto læte cœruleis: fronte et abdomine toto flavis: rostro nigro, pedibus corylinis: long. tota 4·7, alæ 2·6, caudæ 1·6.

Hab. in Venezuelâ, prov. Caracas (*Levraud.*)

This Tanager was first described by Sclater in his Synopsis of the genus *Euphonia*, published in the "Contributions to Ornithology" for 1851, under a MS. name bestowed upon it by Prince Bonaparte. The locality then assigned to it upon the faith of M. Verreaux's label was Ecuador, but its correct "habitat" has since been ascertained to be Venezuela; examples of it forming part of the large series of birds transmitted by M. Levraud to the Museum of the Jardin des Plantes from the vicinity of Caracas.

The nearest ally of this species is *C. viridis*, of the wood-region of South-Eastern Brazil; from which, however, it may be immediately distinguished by its yellow forehead and green back. We regret to say that the female is unknown to us, but we may conjecture that it nearly resembles that of the ally above-mentioned.

Our figure of this Tanager is taken from the specimen in Sclater's collection, which formed the type of his original description. Besides those at Paris, others are in the Berlin Museum, and in the fine collection of Herr Ferdinand Heine, of Halberstadt.

APRIL, 1868.

PLATE XLI. (Fig. 2.)

CHLOROPHONIA LONGIPENNIS.

(LONG-WINGED CHLOROPHONE).

Euphonia longipennis Du Bus, Bull. Acad. Brux. xxii. p. 156, (1855).

Chlorophonia longipennis Sci. P.Z.S. 1855, p. 158; 1856, p. 270; et Cat. Am. Birds, p. 55.

Claré viridis cervice posticâ et dorso imo cum oculorum ambitu cœruleis, interscapulio eodem colore lavato: abdomine toto læte flavo: rostro nigro, pedibus corylinis: long. tota 4·5, alæ 2·55, caudæ 1·2.—*Fœm.* viridis, cervice posticâ et oculorum ambitu solum cœruleis: abdomine flavescenti-viridi.

Hab. in Novâ Granadâ int.

The Viscomte Du Bus de Gisignies first characterized the present Tanager in a communication on new Birds made to the Royal Academy of Sciences of Belgium in 1855. As the describer allows, the bird is very closely allied to *C. viridis* of the South-Eastern wood-region of Brazil, and it is not without some hesitation that we admit the two species as distinct. But *C. longipennis* seems, as M. Du Bus has pointed out, to be smaller in size, brighter in colouring, and to have the wings proportionately longer than the allied species. In the adult *C. viridis* also, the whole back is of a nearly uniform blue, whereas in *C. longipennis* a green tinge pervades the space between the shoulders, even in the most adult specimens we have met with.

M. Du Bus gives Antioquia in the Cauca valley, in New Granada, as the *habitat* of *C. longipennis*. Specimens in Sclater's collection, from one of which our figure is taken, are of the ordinary Bogota make.

APRIL, 1868.



J. Smit del.

M & N Hazenart imp.

CHLOROPHONIA OCCIPITALIS.

PLATE XLII.

CHLOROPHONIA OCCIPITALIS.

(THE BLUE-CROWNED CHLOROPHONE).

<i>Euphonia occipitalis</i>	.	.	.	Du Bus, Esq. Orn. t. 14. ♀ (1847).
"	"	"	"	Bp. Consp. I. p. 233.
"	"	"	"	Scl. Contr. Orn. 1851, p. 90.
<i>Chlorophonia occipitalis</i>	.	.	.	Bp. Rev. Zool. 1851, p. 138, et Note sur les Tang. p. 12.
"	"	"	"	Cass. Rep. U. S. N. Astr. Exp. ii, p. 182, t. 20, f. 2.
"	"	"	"	Scl. P.Z.S. 1856, p. 270; 1857, p. 205; 1859, p. 364; et Cat. Am. Birds, p. 55.
"	"	"	"	Scl. & Salv. Ibis, 1859, p. 17.

Clarè viridis, occipite et lineâ cervicali utrinque cœruleis: torque pectorali obscuré castaneâ: abdomine medio flavo: rostro nigricanti-plumbeo, pedibus corylinis: long. tota 5.0, alæ 3.1, caudæ 1.8.—*Feem.* torque pectorali nullo: abdomine medio flavicante.

Hab. in Mexico Meridionali et Guatemalâ.

This is the most northern representative of the genus *Chlorophonia*, and one of the finest and largest members of the group. It was originally characterized by the Vicomte Du Bus in his "Esquisses Ornithologiques," from a female specimen stated to have been received from Mexico. The male was first described by Sclater, in the "Contributions to Ornithology" for 1851, from a specimen in the British Museum obtained by Delattre probably in the vicinity of Coban in Vera Paz.

Recent collectors in the Southern States of Mexico have made this bird better known to us, both M. Sallé and M. de Oca having obtained specimens in the vicinity of Jalapa. In Guatemala Salvin met with it in tolerable abundance near Coban, where it resorts to the patches of forest left among the clearings. Like the rest of the typical Tanagers it is a fruit-eater, and in this district may be always found during the months of November and December in the branches of such trees as bear fruit at this season. It is also a favourite cage-bird in Guatemala, its showy plumage rendering it attractive, though it has no power of song. Skins obtained by Salvin fully agree with Mexican specimens, so that Sclater's conjecture, (*Ibis*, 1859, p. 232) that the Guatemalan bird might turn out to be *C. cyanodorsalis*, proves to be incorrect. Indeed, we have never yet met with an example of the latter bird, and think it probable that the locality of "Guatemala" has been erroneously assigned to it.

Our figures of this species are taken from specimens in Sclater's collection, the male being one of de Oca's skins, and the female one of the Coban specimens obtained in January, 1860.

The genus *Chlorophonia* comprises the following eight species:—

1. *C. viridis* (Vieill.): Scl. Cat. Am. B. p. 55—from the South-Eastern Wood Region of Brazil.
2. *C. longipennis* (Du Bus): Ex. Orn. t. xli. f. 2—from the interior of New Granada.
3. *C. frontalis*, Scl.: Ex. Orn. t. xli. f. 1—from Venezuela.
4. *C. flavirostris*, Scl.: Cat. Am. B. p. 55—from Ecuador.
5. *C. pretrii* (Lafr.): Scl. l. c. p. 55—from the interior of New Granada.
6. *C. occipitalis* (Du Bus): Ex. Orn. t. xlii.—from Mexico and Guatemala.
7. *C. callophrys* (Cab.): *Triglyphidia callophrys*, Cab. Journ. f. Orn. 1860, p. 331—*Acrocompsa callophrys*, Cab. l. c. 1861, p. 88—from Costa Rica.
8. *C. cyanodorsalis*, Dubois, Rev. Zool. 1859, p. 49, t. 2—said to be from Guatemala.

We possess specimens of all these species except the last two. Salvin has examined the typical specimen of *C. callophrys* in the Berlin Museum, and is satisfied as to its distinctness.

APRIL, 1868.



J. Smit lith.

M & N Hanhart imp

MELANCTIS HYPOLEUCUS.

PLATE XLIII.

MELANOTIS HYPOLEUCUS.

(WHITE-BREASTED MOCKING BIRD).

<i>Melanotis hypoleucus</i>	.	.	.	Hartl, Rev. Zool. 1852, p. 460.
"	"	.	.	Scl. and Salv. Ibis, 1859, p. 7.
"	"	.	.	Scl. P.Z.S. 1859, p. 337, et Cat. Am. Birds, p. 7.
"	"	.	.	Baird, Rev. Am. B. i. p. 57.

Schistaceo-cæruleus, loris et capitis lateribus cum alis et caudâ intus nigris: subtus candidus, hypochondriis et crisso dorso concoloribus: rostro et pedibus nigris: long. tota 10·0, alæ 4·3, caudæ 5·0. *Pullus* nigricans ferè unicolor, subtus albo variegatus.

Hab. in Guatemalâ.

This southern representative of the well known Mexican *M. cærulescens* is one of the most characteristic species of the highlands of Guatemala, being seldom found at an elevation below 3,500 feet, which is also about the lower limit of the evergreen Oaks (*Quercus*) in that country. In the vicinity of Dueñas (nearly 5,000 feet above the sea-level) it is by no means uncommon, frequenting the thick bushes and underwood. It is shy, and eludes observation rather by skulking than by flight. Its song in February is short and disjointed, but a little later, towards the breeding season, improves in quality. About the month of May it forms a slight nest placed in a thick bush, some nine or ten feet above the ground. The structure consists of small twigs and is lined with fine roots. The eggs are three in number—rather elongated in form and of a uniform greenish blue in colour. They measure axis 1·2 diameter 0·95. In July, 1859, Salvin shot a young bird of this species, which had apparently just left the nest. Besides the vicinity of Dueñas this Mock-bird is also found in the elevated parts of Vera Paz. Specimens were obtained by Salvin at San Geronimo, and again in the vicinity of Coban—in both of which localities it appeared to be abundant.

The *Melanotis hypoleucus* was first described by Dr. Hartlaub in 1852 from specimens sent by M. Gädechens to the Museum at Hamburg. It forms a second species of the genus *Melanotis*, the type of which is *M. cærulescens* of Mexico. In form it perfectly agrees with the latter, but is readily distinguishable by the pure white colour of the body below.

Our figures of this bird are taken from skins in the collection of Messrs. Salvin and Godman—the immature bird being the individual above alluded to, shot near Dueñas in 1859.



J. Smit lith.

M&N Harhart imp

TINAMUS ROBUSTUS.

PLATE XLIV.

TINAMUS ROBUSTUS.

(ROBUST TINAMOU).

<i>Tinamus major</i> (?)	.	.	.	Moore, P.Z.S. 1859, p. 63.
" "	.	.	.	Scl. and Salv. Ibis, 1859, p. 226.
<i>Tinamus robustus</i>	.	.	.	Sclater, P.Z.S. 1860, p. 253, et 1864, p. 371.
" "	.	.	.	Salv. Ibis, 1861, p. 355, et P.Z.S. 1867, p. 159.
" "	.	.	.	Parker, Trans. Z. S. v. p. 205 et seq.
" "	.	.	.	Lawrence, Ann. N. Y. Lyc. vii. p. 477.
" "	.	.	.	G. R. Gray, List of Gallinæ (1867), p. 97.

Suprà brunnescenti-olivaceus, nigro irregulariter transfasciatus: cervice immaculatâ; pileo nuchâque nigris, hâc ferrugineo punctatâ: subtus pallidè olivacescenti-cinereus, gulâ albâ; lateribus capitis et gutture inferiore nigro et rufescente variegatis; ventre medio albicantiore, nigro obsolete transradiolato; tibiis et tectricibus caudæ inferioribus nigricante et fulvo variegatis; tectricibus alarum inferioribus fuliginosis; remigibus primariis nigricantibus unicoloribus; rectricibus plumbeo-nigris, apicibus olivacescenti-brunneis; maxillâ nigricanti-olivaceâ, mandibulâ albicante, pedibus obscure olivaceis: long. tota 15.0, alæ 9.50, caudæ 3.50, rostri a rictu 1.70, tarsi 2.60.

Hab. in Mexico Meridionali (*Sallé*): Guatemalâ (*Salvin*): Rep. Honduratsensi et Belize (*Leyland*): Veraguâ (*Arce*): Isth. Panamâ (*McLeannan*).

Obs. Similis *T. majori*, sed crassitie majore, pileo nigricante nec rufescente, et suprà magis distincte maculatus.

The typical Tinamous, for which Cabanis proposed the generic name *Trachypelmus*, constitute a very well marked section of this peculiar group, characterized by the elevation of the upper edges of the posterior tarsal scutes, which form a kind of rasp on the plantar surface. The only species of this genus found in America north of the isthmus of Panama, as far as our present knowledge extends, is the one herewith figured from a Guatemalan specimen in the collection of Messrs. Salvin and Godman.

When first met with this species was hardly distinguished from its southern representative in the wood-region of Brazil, and was consequently referred to (with doubt) in our earlier articles on the birds of Central America, as *Tinamus major*. In 1860, however, on the receipt of excellent specimens collected by M. Sallé in the State of Vera Cruz, Sclater came to the conclusion that the bird was truly distinct, and proposed to call it *robustus*, from its powerful form.

Like a large number of other Central American species of birds *Tinamus robustus* extends from Southern Mexico down to Panama, but does not appear to occur in any more southern locality,—unless Mr. Cassin's *Tinamus major*, obtained by Mr. Wood on the Truando* be,

* Proc. Acad. Sc. Phil. 1860, p. 195.

as we suspect, referable to it. In Honduras, Leyland tells us it is common throughout the district of Omoa, and known to the English Mahogany-cutters as the "Ground Partridge,"—a name probably also applied to the other species of the group met with in the same district. It is stated to lay its eggs in "a slight depression scratched in the angles formed by the projecting buttress-like roots of the Mahogany-trees."

In the adjoining state of Guatemala, Salvin found this bird abundant throughout the low-lying forest-district of Northern Vera Paz, especially along the tract which leads from Cahabon to Peten. Every day during his journey along this route, in the month of March 1862, specimens of it were shot, and formed a material addition to the scanty supply of animal food obtainable in these forests. The flesh is excellent, the pectoral muscle, which in the fresh bird has a greenish tinge, being large and tender. Other observers have stated that this bird is shy and difficult of access, but Salvin usually found them running along the track a little in advance of the party, and seldom taking flight before they were within shot. When once on the wing, however, their flight is strong, although the distance traversed is not usually very great.

Salvin obtained many specimens of the eggs of this Tinamou, in different parts of Eastern Guatemala. They are much more rounded in form than other eggs of this family, measuring only 2.3 in. in length and 2.0 in. in diameter, but exhibit the same shining glossy texture, quite different from what is met with in any other group of birds. Their colour is of a bright uniform greenish blue, like that of the egg of *Tinamus major*. In Guatemala these eggs are much admired, and may be often seen suspended as offerings to adorn the shrine of some way-side image.

APRIL, 1863.



J. Smith del.

M. & J. Harcourt imp.

CRYPTURUS SALLCEI

PLATE XLV.

CRYPTURUS SALLÆI.

(SALLÉ'S TINAMOU).

<i>Tinamus (Nothura) cinnamomea</i>	. . . . .	Less. Rev. Zool. 1842, p. 210 (?).
<i>Tinamus cinnamomeus</i>	. . . . .	Scl. et Salv. Ibis, 1859, p. 226.
<i>Tinamus delattrii</i>	. . . . .	Bp. Compt. Rend. xxxviii. p. 663 (?).
<i>Nothocercus sallæi</i>	. . . . .	Bp. Compt. Rend. xlii. p. 954.
" "	. . . . .	Sclater, P.Z.S. 1856, p. 310.
<i>Tinamus sallæi</i>	. . . . .	Scl. P.Z.S. 1859, pp. 369, 392.
" "	. . . . .	G. C. Taylor, Ibis, 1860, p. 312.
" "	. . . . .	G. R. Gray, List of Gallinæ (1867), p. 100.

Nigricans, rufo undulatus: alarum vittis latioribus et flavescenioribus: cervice posticâ et dorso superiore ferè puris: pileo nigricante; nuchâ rufescente, nigro undulatâ: lateribus capitis rufis: subtus cinnamomeo-rufus: cervice cinereâ, gulâ niveâ; lateribus et crisso nigro variegatis: rostro corneo: mandibulâ et pedibus flavis: long. tota 10·0, alæ 6·2, tarsi 1·8, rostri a rictu 1·5.—*Fœm.* pileo toto fulvo transfasciato: pectore et gulâ nigro et fulvo distincte transradiolatis: fasciis laterum distinctioribus.

Hab. In Mexico meridionali (*Sallé*): Guatemalâ (*Salvin*): Costa Rica (*Arcé*).

The first name *certainly* applicable to this Tinamou is that which we have adopted for its designation, although it is probable that the two earlier terms quoted as doubtful in our synonymy may have been based upon individuals of this species. But in each case the description is too short and vague to be recognizable, and, the type-specimens not being available, it is impossible to ascertain with certainty what species was intended.

The original specimens of Sallé's Tinamou were obtained by M. Auguste Sallé, whose name it bears, at Cordova in the State of Vera Cruz. Other examples were procured by De Oca in the vicinity of Jalapa, and by Boucard at Playa Vicente on the Rio Tesechoacan, so that it is probably not an uncommon bird in the eastern forests of Southern Mexico. In Guatemala Salvin found this species tolerably abundant in the forests below Alotenango, on the southern slope of the Volcanoes of Agua and Fuego, but in no other part of the republic. Like the rest of the family in Guatemala it is a strictly forest-bird, being known to the Creoles of that country as the *Gallina del Monte* or "forest fowl." The flesh is as good as that of *Tinamus robustus*, of which we have already spoken, and renders the bird a favourite object of pursuit of the Indian hunters. A specimen obtained alive and kept some time in captivity was frequently observed to rest upon its tarsi, as depicted in the figure of the preceding species.

Southwards of Guatemala this Tinamou was met with in Western Honduras by Mr. G. C. Taylor, during his journey across the proposed Interoceanic Railway-route, and at Bebedero, on the Gulf of Nicoya, by Arcé. From the latter collector we have received two specimens, which agree sufficiently well with northern examples.

The front figure of Plate XLV. represents what we consider to be an adult male of this species. It is taken from a specimen (marked male) procured near Vera Cruz, in November, 1864, by M. Boucard. The figure in the back-ground is that of one of Salvin's Guatemalan specimens, which we believe to be a female, shot in the forests of the Pacific coast region, near the hacienda "El Zapote." Both these specimens are now in the collection of Messrs. Salvin and Godman. As pointed out in the characters above-given, the female differs from the male in the greater development of the transverse markings, which in this sex cover the top of the head, the front of the breast, and the whole of the sides of the body below. In some of the adult males the bars on the breast and sides are almost entirely evanescent, even more so than is represented in our figure.

APRIL, 1868.

Eco. Orru.

Plate XLVI



J. Smith del.

M & N Hanhart. imp.

CRYPTURUS BOUCARDI

PLATE XLVI.

CRYPTURUS BOUCARDI.

(BOUCARD'S TINAMOU).

<i>Tinamus boucardi</i>	.	.	.	Sclater, P.Z.S. 1859, p. 391.
"	"	.	.	Salvin, Ibis, 1861, p. 356.
"	"	.	.	G. R. Gray, List of Gallinæ (1867), p. 100.
<i>Tinamus sallæi</i>	.	.	.	Salv. Ibis, 1861, p. 356 (<i>err.</i>).

Obscurè cinereus; dorso toto et alis extus brunneis, his nigro minutissime vermiculatis: remigibus alarum fusco-nigris fusco paululum variegatis: subtus dilutior, gulâ sordidè albâ, ventre fulvescenti-brunneo lavato: crisso et tectricibus subcaudalibus nigro variegatis: rostri maxillâ plumbeâ mandibulâ albidâ, pedibus clarè corylino-flavis: long. tota 10·0, alæ 6·5, tarsi 2·0, rostri a rictu 1·3.—*Æm.* Mari similis, sed dorso imo, tectricibus caudæ superioribus, et secundariis extus cum tectricibus alarum nigro et fulvo distincte transfasciatis.

Hab. In Mexico meridionali (*Boucard*): Vera Pace, Guatemalâ (*Salvin*).

In form, size, and general appearance, Boucard's Tinamou presents a close resemblance to the bird which bears the name of M. Sallé, who along with M. Boucard has done so much to advance our knowledge of Mexican Ornithology. But in every stage of plumage the present species may be recognized by the uniform dark slaty colour of the chest and neck below, which bear no traces of transverse markings.

Boucard's Tinamou seems to be rather more restricted in its range than its allied species. It was first discovered in the mountains of Oaxaca by the well-known collector whose name it bears, and described in Sclater's article upon M. Boucard's collection in the Zoological Society's "Proceedings" for 1859. In Guatemala Salvin found this bird common in the forest-district of Northern Vera Paz. It is known to the Indians of Coban by the name of the "*Baa-look*," derived from its peculiar call, which is prolonged into a sort of melancholy wail. Like the rest of its congeners in Central America, although of strictly terrestrial habits, it is only met with in the dense forests. Numerous specimens were procured in the vicinity of Choctum and other adjoining villages of Vera Paz, and afforded a material contribution to the scanty supply of fresh meat obtainable in those districts. In Western Guatemala this Tinamou appears to be quite unknown, its place being taken in the forests of the Pacific slope by the allied *Crypturus sallæi*.

As shewn by our figures of this and the preceding species, a not inconsiderable diversity in the markings of the plumage is exhibited upon comparison of a series of individuals. This most

probably arises from difference of sex. In the present bird we believe that the figure in the back-ground represents the adult dress of the female. The specimen from which the drawing was taken was obtained by Salvin during his stay at Choctum, in the month of February, 1862, and turned out to be a female on dissection. Another of the same sex, and in precisely similar plumage, was brought in by an Indian on the same occasion. Unfortunately we have not quite such positive information respecting the male of this species, but our front figure is taken from one of the type-specimens obtained by M. Boucard at Teotalcingo, in March, 1859, which is marked as being of this sex,—and is, we believe, in nearly adult plumage. This specimen, as well as the two former, is now in Messrs. Salvin and Godman's collection.

If these suppositions are correct, the female of Boucard's Tinamou differs from the male in having the lower back, secondaries, and wing-coverts strongly banded across with light yellowish brown; and the markings on the wing-coverts of the male specimen figured in our plate are the remains of the mottled plumage, which would wholly disappear in the perfectly adult bird. The correctness of this view is strengthened by some specimens from Vera Paz being nearly destitute of markings on the wings and coverts, while others have them more strongly shewn.

APRIL, 1868.

Ex. Orn.

Plate XLVII



J. Sm. lith.

M&N Hanhart imp

CRYPTURUS MESERYTHRUS.

PLATE XLVII.

CRYPTURUS MESERYTHRUS.

(RED-BELLIED TINAMOU).

<i>Tinamus meserythrus</i>	.	.	.	Sclater, P.Z.S. 1859, p. 392.
"	"	.	.	Salv. Ibis, 1861, p. 356.
"	"	.	.	Scl. et Salv. P.Z.S. 1864, p. 371.
"	"	.	.	G. R. Gray, List of Gallinæ (1867), p. 99.
<i>Tinamus pileatus</i>	.	.	.	Lawrence, Ann. Lyc. N. Y. vii. p. 334.

Ex olivaceo rufescens: alarum remigibus nigricantibus: pileo toto nigricante cinereo: subtus saturatè ferrugineo-rufus, medialiter clarior, crisso pallide cinnamomeo, hypochondriis et pectore antico obscurioribus, nigricante adumbratis: remigibus subtus pallide schistaceis: rostri maxillâ plumbeâ, mandibulâ albicantè: pedibus clarè corylinis: long. tota 9.5, alæ 5.2, tarsi 1.5, rostri a rictu 1.15.—*Fœm.* mari similis, sed crisso nigro paulum variegato.

Hab. In Mexico merid. (*Boucard*): Guatemalâ (*Salvin*): Veraguâ (*Arcé*): Panamá (*McLeannan*): Chepo (*Arcé*).

It is somewhat questionable, we admit, whether this Tinamou,—the fourth and last of the family met with north of the Isthmus of Panama,—can be maintained as distinct from the southern *Crypturus pileatus*, to which it is undoubtedly very closely allied. But we have given a figure of it, taken from the type-specimen now in the collection of Messrs. Salvin and Godman, in order to complete our account of the Central American species of this little known group. Nine specimens of this Tinamou from the various localities indicated in the foregoing list, present but very trifling differences when compared together, except that the younger birds are not so bright below, and the females (so labelled) present some traces of black markings on the crissum. They appear to differ from Brazilian skins of *Crypturus pileatus* only in the darker chest, darker flanks in contrast to the bright rufous belly, purer white throat and larger tarsi.

Salvin found this species quite common in the forests of Vera Paz,—the same district as that inhabited by *Crypturus boucardi*, with which it also agrees in habits and manners. On several occasions its eggs were brought in by the Indians of Choctum, who are very familiar with the bird, and have a distinct name for it. The eggs are oval, alike at both ends, and measure axis 1.7 in., diameter 1.3 in. Their colour is of a uniform rich red chocolate-brown.

The only Mexican specimens of this Tinamou we have met with are those obtained by M. Boucard at Playa Vicente on the Rio Tesechoacan. It would appear to be more abundant further south, having been obtained by Arcé in Veragua, although accidentally omitted from Salvin's list of the birds of that country,* and by McLeannan on the Panama Railway. On the Isthmus, the latter collector tells us it is very common, being found on the ground in the jungles, and eating corn and rice in captivity.

* In Proc. Zool. Soc. 1867, p. 129.



PLATE XLVIII.

TIGRISOMA CABANISI.

(CABANIS' TIGER-BITTERN).

<i>Tigrisoma cabanisi</i>	. . . . .	Heine, Journ. f. Orn. 1859, p. 407.
<i>Ardea cabanisi</i>	. . . . .	Schl. Mus. d. P. B. <i>Ardeæ</i> , p. 51.
<i>Tigrisoma tigrinum</i>	. . . . .	Scl. P.Z.S. 1858, p. 359; 1860, p. 253.
" "	. . . . .	G. C. Taylor, Ibis, 1859, p. 151.
" "	. . . . .	Scl. & Salv. Ibis, 1859, p. 226.
" "	. . . . .	Salv. Ibis, 1865, p. 191.
<i>Tigrisoma brasiliense</i>	. . . . .	Moore, P.Z.S. 1859, p. 63.

Supra nigricanti-olivaceum, fulvescente fasciolatum: pileo nigro, capitis lateribus cinereis: alis caudâque cœrulescenti-nigris, primariis albo terminatis: subtus gutture toto nudo, cervice et pectore nigricantibus sicut in dorso, sed latius fulvescente transfasciatis; cervice mediâ (utrinque nigro marginatâ) cum abdomine toto fulvescenti-rufis; rostro nigricante, hujus basi viridescenti-flavo, pedibus obscurè olivaceis: long. tota 28·0, alæ 14·0, caudæ 6·0, tarsi 4·4, rostri a rictu 5·5.—*Junior.* suprâ omninò fulvo et nigricante transradiatus, alis caudâque plumbeo-nigricantibus albo transfasciatis; subtus dilutior, sordido cinnamomeo et nigro transfasciatus, fasciis in ventre latioribus et minus frequentibus.

Hab. in Mexico meridionali; Guatemalâ et Honduras.

This Bittern has, until recently, been confounded with its southern representative *Tigrisoma brasiliense*, from which, however, it may be at once distinguished by its wholly bare throat, a character which is possessed by no other American representative of the genus. In addition to this there are conspicuous differences between the plumages of the two species, the head in the present bird being black instead of rufous, and the whole upper plumage generally of a darker character, while the abdomen is dark cinnamomeous instead of rufous-grey, and wants the black and white marks on the flanks. In short, the differences between the two allies are so conspicuous that it would not be possible to confound them on comparison. Such then being its distinguishing characters, it is strange, indeed, that this species should have been mistaken for *T. brasiliense*, yet most authors who have mentioned the Central American bird, have assigned to it the name of *T. tigrinum*, under which the young of *T. brasiliense* has been usually denominated. Herr Ferdinand Heine, Junior, was the first to discover this mistake, and in the "Journal für Ornithologie" for the year 1859, described and named the northern species after Dr. J. Cabanis, his coadjutor in the latter portion of the well known work the "Museum Heineanum." This name is adopted by Dr. Schlegel, as quoted above.

The range of Cabanis' Tiger Bittern seems to be confined to the northern portion of the great Central American Isthmus. M. Sallé obtained specimens in the neighbourhood of Orizaba in Southern Mexico. Mr. Joseph Leyland also found it in Honduras, and tells us that it is known to the Mahogany-cutters of that district as the "*Barking Garling*," and is common at Aloor River and Omoa, remaining at the latter place throughout the year. It also occurs at Tigré Island in the Gulf of Fonseca, as recorded by Mr. G. C. Taylor. In Guatemala on several occasions it came under Salvin's notice. In April, 1862, one was shot on the bank of a small stagnant pool near the village of Juntecholol, on the track from Vera Paz to Peten. It was by no means shy, and in all its actions shewed the deliberate movements so well known in the common Bittern of Europe (*Botaurus stellaris*). On the Pacific coast the brackish and salt-lagoons in the neighbourhood of Chiapam and Huamuchal were found to be a very favourite resort for the bird, and hardly a day passed without one or more of them being seen.

Southwards of Guatemala we have not traced the occurrence of this bird with certainty. As yet we have seen no specimens from Costa Rica, and on the Isthmus of Panama the southern bird *T. brasiliense* seems to entirely supplant it. It follows, therefore, that the range of *T. cabanisi* extends over Southern Mexico, Guatemala, and Honduras, but that it may also occur in Costa Rica.

Our illustrations of this species are taken from specimens in Messrs. Salvin and Godman's collection. The larger figure which represents a bird in almost adult plumage is from the specimen obtained at Juntecholol, as above mentioned. The figure in the back-ground which shews the immature dress, is from an example shot at Chiapam, in September, 1862. In the latter a few of the feathers of the adult plumage shew themselves.

APRIL, 1868.



PLATE XLIX.

LEUCOPTERNIS PALLIATA.

(GREY-BACKED BUZZARD).

<i>Leucopternis palliata</i>	.	.	.	Pelz. Sitz. Ak. Wien. xlv. p. 11: Verh. Zool. Bot. Ges. Wien, pp. 141, 184; et Orn. Bras. p. 3.
<i>Buteo polionotus</i>	.	.	.	Gray, List of Accipitres, 1844, p. 17.
"	"	.	.	Kaup, Isis, 1847, p. 212.
"	"	.	.	Strickl. Orn. Syn. p. 37.
<i>Leucopternis polionota</i>	.	.	.	Bp. Consp. i. p. 19.

Alba; alis, interscapulio et dorso inferiore cum dimidio caudæ basali obscure schistaceis; primariis quinque internis et secundariis omnibus albo terminatis: dorsi plumis partim albo extus marginatis et internè albo fasciatis: remigibus et rectricibus in caudæ parte basali pallidé griseis, schistaceo transfaciatis: rostro nigro, cerâ pallide flavâ; pedibus flavis, unguibus nigris: long. tota 21.0, alæ 16.5, caudæ 8.0, rostri à rictu l. d. 1.8, tarsi 3.6. *Mas.* feminae similis, sed minor.

Hab. in Brasiliâ meridionali orient. (*Natt.*).

No description ever having been published of Mr. G. R. Gray's "*Buteo polionotus*," although the name has been quoted by several authors, we have felt ourselves bound to adopt Herr v. Pelzeln's designation "*palliata*" for the present bird, accompanied, as it is, by an excellent diagnosis and full particulars respecting the distinctive characters of the species. We have less hesitation in adopting this course as, if manuscript names are to be considered at all, Natterer's term *palliatus* (which v. Pelzeln employed) has in all probability higher claims to antiquity than any that our friend Mr. Gray could urge in favour of his appellation.

Natterer's unique specimen of this well marked species (an old female) was obtained at Ypanema, in the eastern portion of the Brazilian province of S. Paulo, in July, 1822. In his MS. notes, subsequently published by von Pelzeln, he describes the iris as not very dark brown, and the cere as pale yellow, the feet as yellow passing into orange, and the claws black. Natterer adds that he observed other specimens of this species in the mountains near Rio Janeiro.

As in the case of other species of *Leucopternis* all examples of the present bird that we have met with present a remarkable uniformity in their appearance. In very old birds it is possible that the white edgings to the feathers of the back and wings, which are more apparent in some specimens than in others, may wholly disappear; but we have no evidence to shew that there exists in this genus any peculiar dress of immaturity, such as is usually the case in typical *Buteo* and its affines.

The nearest ally of this Buzzard seems to be *Leucopternis scotoptera* (Max.), which is well figured in Temminck's Planche Colorée, No. 427, under the name *Falco lacernulatus*. The present species has much the same general coloration as the latter, but may be immediately distinguished by its larger size, and by having the whole of the apical portion of the tail pure white without any black cross-band.

Our figure of this bird, which is half the natural size, is taken from a specimen in the collection of Messrs. Salvin and Godman, purchased of Verreaux. It is marked "Brazil" and was in all probability obtained in the vicinity of Rio.

JULY, 1868.



SCOPS FLAMMEOLA

PLATE L.

SCOPS FLAMMEOLA.

(FLAMMULATED OWLET).

<i>Scops flammeola</i>	.	.	.	Licht. in Mus. Berol. : Nomencl. p. 7.
"	"	.	.	Kaup, Trans. Z. S. iv, p. 226.
"	"	.	.	Schlegel, Mus. de P. B. <i>Oti</i> , p. 27.
"	"	.	.	Sclater, P.Z.S. 1858, p. 96.
"	"	.	.	Scl. et Salv. P.Z.S. 1868, p. 57.

Suprà grisescenti-fuscus, nigro striatus et vermiculatus, scapularium marginibus et capitis plumis partim rufo variegatis; remigum primariorum pogoniis externis maculis quadratis albis ornatis: subtùs grisescenti-albus, plumis omnibus strigâ rachidali et fasciis numerosis transversis nigris instructis: gulâ et pectore rufescente partim tinctis: tarsi omninò plumosis, albis, nigro paulùm variegatis: rostro pallidè corneo, apice flavicante; pedibus fuscis: long. tota 7·0, alæ 5·5, caudæ 1·6, tarsi 0·9.

Hab. in Mexico merid.: Jalapa (*Sallé*): Orizaba (*Sumichrast*): Californiâ boreali (*Feilner*): Guatemalâ (*Salvin*).

This Owl is one of the many Mexican species named but never described by the late Professor Lichtenstein. Dr. Kaup, however, has given full characters of it, in his memoir on the Strigidæ published in the Zoological Society's "Transactions", under Lichtenstein's MS. name which has been generally adopted.

Scops flammeola is readily distinguishable from every other American species of the genus (except *Scops barbarus*) by its diminutive size, which is nearly the same as that of our familiar European bird. Its plumage below presents the same character of markings as that of *S. asio* and *S. trichopsis*, but, besides its size, the wholly bare toes at once distinguish the present bird. The third and fourth primaries of the wing are very nearly equal and longest, the fifth being slightly shorter, and the second of the same length as the sixth. The edgings of the external scapularies form a rufous line between the wing and the back, which we have not noticed in any other species of the group. This feature is well represented in our figure, which is taken from a specimen obtained by Salvin at Dueñas in Guatemala in January 1863.

Besides Mexico and Guatemala, which we have already mentioned as localities for this Owl, a portion of the Western United States is likewise embraced within its range. A skin collected by Mr. Feilner in August 1860, at Fort Crook, in Northern California, in the collection of the Smithsonian Institution (No. 24,172) undoubtedly belongs to this species. A second specimen in the same collection was obtained by Professor Sumichrast in the mountains of Orizava. It is marked "iris golden-yellow, cere olive-yellow." We have to record our great obligations to the authorities of the Smithsonian Institution for the loan of these and many other specimens of American Owls.

JULY, 1868.



PLATE LI.

SCOPS BARBARUS.

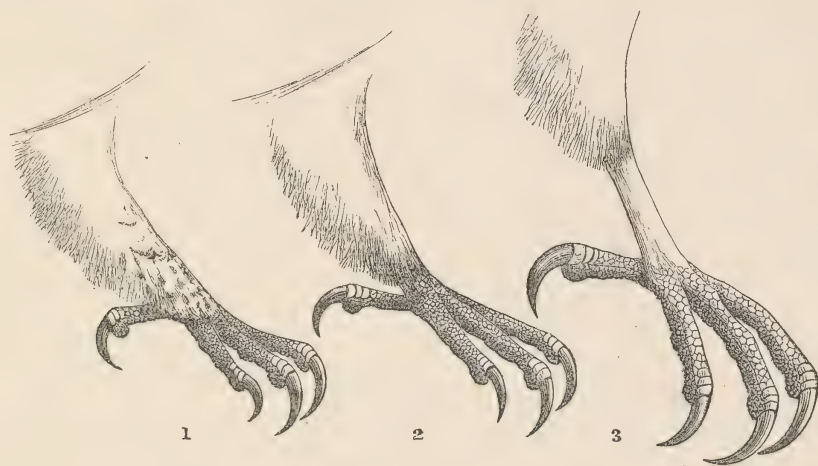
(GUATEMALAN OWLET).

<i>Scops flammeola</i>	.	.	.	Salvin, Ibis, 1861, p. 355 (<i>err.</i>).
<i>Scops barbarus</i>	.	.	.	Scl. et Salv. P.Z.S. 1868, p. 56.

Niger, pallido rufo punctatus et variegatus: superciliis in torquem nuchalem transeuntibus albo guttatis: scapularium pogoniis externis distincte albo ocellatis: primariis fusco-nigris, in pogonio externo rufescenti-albo septies transfasciatis: caudâ nigricante, rufescente quinquies transfasciatâ: subtus nigricans, præcipue in ventre ocellis albis frequenter aspersus; crisso albicante, nigro punctato: tarsi pro maiore parte dense vestitis; horum autem parte augustâ terminali cum digitis omnino nudis: long. tota 7.0, alæ 5.4, caudæ 2.5, tarsi 1.0.

Hab. in Guatemalâ, prov. Veræ Pacis (*Salvin*).

In his additional list of Guatemalan birds, published in the "Ibis" for 1861, Salvin has referred to a specimen of *Scops flammeola*, obtained by Mr. Robert Owen in the mountains of Santa Barbara near San Geronimo, Vera Paz. A recent examination of this skin has convinced us that it was wrongly determined, and belongs to a species essentially distinct from that figured in the foregoing plate. *Scops barbarus* is, as we have already stated, of about the same size as *S. flammeola*, but, as is shewn in our original description of this bird, may be at once distinguished by a comparison of the tarsi of the two species. In *Scops flammeola* (Fig. 1) the tarsus is wholly covered all round by short thick-set feathers, which extend down to the basal phalanges of the toes, quite up to if not slightly beyond the joints. In the present species (Fig. 2) the feathering of the tarsus does not descend quite so far, and leaves the distal extremity bare like the toes. This will be readily observed in the accompanying figures of the feet of the two birds, to which is added, for the sake of comparison, a corresponding figure of the foot of *Scops nudipes* (Fig. 3).



Other well-marked characters of plumage accompany the diversity already noticed. In

Scops barbarus there are no traces of the strongly marked black shaft-spots, which ornament the under plumage of *Scops flammeola*, but the whole surface is thickly strewn with white ocellations upon a dark brown ground. The same character of markings also pervades the face, hinder-neck, and scapularies. The fourth and fifth primaries are equal and longest in the present species, the sixth equalling the third. The first is 1.5 in. shorter than the fourth and fifth. The first three primaries do not appear to be so deeply excised as in the allied species.

The front figure in our plate represents what we believe to be the normal plumage of this species, while the hinder figure represents the hepatic form so frequently met with in this family of birds. Both the specimens figured are from Vera Paz, and are now in Messrs. Salvin and Godman's collection. The only other individual we have seen, which is in the collection of the Smithsonian Institution (No. 42,776), was also obtained in Vera Paz by Mr. Henry Hague of San Geronimo. This bird is intermediate in colour between the two we have figured.

Since we treated of this group of Owls in the "Proceedings" of the Zoological Society we have seen the type-specimens of *S. portoricensis* in the Paris Museum, but have been unable to distinguish it from *S. brasiliensis*. *S. lophotes* of Lesson, of which we have also seen the type is probably only a paler form of the same bird. There remain, therefore, only seven well-marked species of this genus in America, namely:—

a. *Digitis setosis*.

- (1) *S. asio* (Linn.) Baird's B. N. A. p. 51, ex America septentr. universâ.
- (2) *S. kennicotti*, Elliot, Proc. Ac. Phil. 1867, p. 99, ex America bor. occ.
- (3) *S. trichopsis*, Wagler, Isis, 1832, p. 276. *S. maccalli*, Cassin. Ex. Texas, Mexico, et Guatemalâ.

b. *Digitis omnino nudis*.

- (4) *S. flammeola*, ex Californiâ Mexico et Guatemala.
- (5) *S. barbarus*, ex Guatemalâ.
- (6) *S. brasiliensis*, (Gm.). *S. choliba*, Vieill. *S. crucigera*, Spix. *S. portoricensis*, Less. *S. ustus*, Selater. *S. atricapilla*, Temm. Ex America meridionali tropicâ.

c. *Digitis cum tarsorum dimidio basali nudis*.

- (7) *S. nudipes* (Vieill.). *Bubo nudipes*, Vieill. Ois. de l'Am. Sept. i. p. 53, t. 22. *Ephialtes nudipes*, Cassin, List of Owls. Ex Costâ Ricâ (*Arcé*): Bogotâ (*Cassin*).

JULY, 1868.



PLATE LII.

CHÆTURA SEMICOLLARIS.

(HALF-COLLARED SPINE-TAILED SWIFT).

- Acanthylis semicollaris* . . . De Saussure, Rev. Zool. 1859, p. 118.
Chætura semicollaris . . . Selater, Cat. A. B. p. 282: P.Z.S. 1863, p. 99, et 1865, p. 609.

Fuscescenti-nigra: torque semicollari postico albo: long. tota 10.0, alæ 10.0, caudæ 3.0, tarsi 1.05.
Hab. Mexico (*De Saussure*).

This fine Spine-tailed Swift is closely allied in structure to the well-known and widely distributed *Chætura zonaris*, but considerably exceeds it in size, and is, in fact, the largest and most powerful bird of the whole family. It appears to be very scarce in European collections; the specimen in Selater's possession, whence our figure is taken, being the only one we have yet met with. This is the more to be wondered at, as the country which it inhabits has lately been explored by several intelligent collectors, who could hardly have passed over so striking a species had it come before their notice.

M. H. de Saussure—the discoverer and describer of this species—gives us no information concerning it, except that it inhabits the “great forests of Mexico.” He has not even thought fit to record the province of that extensive country in which it was obtained. His specimens were deposited in the Geneva Museum, from which Selater's example was obtained by purchase.

A complete account of the synonymy and distribution of the American species of this group having been lately published by Selater in the Zoological Society's “Proceedings,”* we think it will be sufficient on the present occasion to give a list of them in a tabular form, inserting in their places two species more recently described: namely *C. sclateri*, Pelzeln, Orn. Bras. p. 56, from the vicinity of Borba, and *C. brachycerca*, Scl. et Salv. P. Z. S. 1867, p. 758, t. xxxiv, from Xeberos in Eastern Peru.

a. HEMIPROCNE.

1. *C. semicollaris* (De Saussure), ex Mexico, P. Z. S. 1865, p. 609.
2. *C. biscutata*, Selater, ex Brasil. mer. or. l. c. p. 609.
3. *C. zonaris* (Shaw), ex Am. merid. et centr. l. c. p. 609.

b. CHÆTURA.

4. *C. pelasgia* (L.), ex Am. bor. orient. l. c. p. 610.
5. *C. vauuxii* (Towns.), ex Am. bor. occ. et centrali, l. c. 611.
6. *C. poliura* (Temm.), ex Cayennâ, l. c. p. 611.
7. *C. brachycerca*, Scl. et Salv., ex Amazoniâ Peruv.
8. *C. cinereiventris*, Scl., ex Brasil. mer. or. l. c. p. 612.
9. *C. sclateri*, v. Pelz., ex Amazoniâ.
10. *C. spinicauda* (Temm.), ex Cayennâ, l. c. p. 612.
11. *C. rutila* (Vieill.), ex Guatemalâ et Mexico, l. c. p. 613.

* 1865, p. 593 et seq.

JULY, 1868.



PLATE LIII.

PORZANA HAUXWELLI.

(HAUXWELL'S CRAKE).

Corethrura sp. Scl. et Salv. P.Z.S. 1866, p. 200.
Porzana fuscata Scl. et Salv. P.Z.S. 1867, p. 981.

Fuscescenti-olivacea, alis obscurioribus, capite toto cum collo et corpore subtus ad imum pectus castaneis: abdomine rufo nigroque transfasciato: subalaribus rufis nigro maculatis: rostro obscure corneo, pedibus saturate corylinis: long. tota 6·5, alae 3·5, caudae 1·2, tarsi 1·6, rostri à rictu ·85.

Hab. in Amazoniâ Peruvianâ: fl. Ucayali (*Bartlett*): Chamicurros et Pebas (*Hauxwell*).

The vast water-basin of the Amazons, so constantly overflowed by the rising of its numerous affluents, would naturally be supposed to be a very fit habitation for Rallidæ of every description. Yet the species of this group met with within its area are certainly not numerous. Not a single Coot (*Fulica*) and only one true Waterhen (*Gallinula*) occurs, as far as we know, anywhere within its limits, and but three or four other members of the family have as yet been registered as appertaining to the Amazonian Fauna. But the recent exertions of collectors upon the Upper Amazon and its tributaries have brought to light one or two new species of the group, and others perhaps remain to be discovered, as from their skulking habits these birds easily elude observation.

We first made the acquaintance of the present species of Crake in Mr. E. Bartlett's first collection from the Ucayali, but were not then sufficiently acquainted with the group to venture to describe it as new. Subsequent researches, into which we were led by the receipt of a second specimen in Mr. Hauxwell's collection from Pebas, convinced us that it was unknown to science, but we unluckily selected for it a name which had been already appropriated to a member of the same group. Under these circumstances we now propose to rename it after Mr. Hauxwell, who besides the specimen just mentioned had previously obtained an example of the same bird in his large collection made at Chamicurros and on the Huallaga in 1854. The last mentioned specimen, as also that obtained by Mr. Bartlett, are now in the British Museum. Mr. Hauxwell's skin from Pebas, from which our figure and description have been taken, is in the collection of Messrs. Salvin and Godman.

Hauxwell's Crake is a well-marked species, and hardly liable to be confounded with any other American member of the family. In style of colour it appears to unite the two sections called by the late Prince Bonaparte *Laterirallus* and *Rufirallus*, having the banded sides of the former, whilst in general plumage it more nearly resembles *Porzana concolor* and certain other members of the latter group.



PLATE LIV.

PORZANA MELANOPHÆA.

(RED-VENTED CRAKE).

<i>Ypecaha pardo obscuro</i>	.	.	.	Azara, Apunt. iii. p. 230, No. 376.
<i>Rallus melanophaius</i>	.	.	.	Vieill. N. D. xxviii. p. 549, et Enc. Meth. p. 1064.
<i>Corethrura melanophæa</i>	.	.	.	Hartl. Ind. Az. p. 24.
"	"	.	.	Gray, Gen. iii. p. 595.
<i>Crex lateralis</i>	.	.	.	Licht. Doubl. p. 79.
<i>Gallinula lateralis</i>	.	.	.	Max. Beitr. iv. p. 805.
<i>Ortygometra lateralis</i>	.	.	.	Burm. Syst. Ueb. iii. p. 387.
<i>Gallinula albifrons</i>	.	.	.	Sw. An. in Menag. p. 338.

Fuscescenti-olivacea, alis extus et dorso postico obscurioribus: subtus alba, lateribus cervicis et pectoris cum crisso toto rufis; hypochondriis albo nigroque transfasciatis: rostro olivaceo apice flavicante; pedibus pallide corylinis: long. tota 6·3, alæ 3·1, caudæ 1·5, tarsi 1·25, rostri a rictu 0·8.

Hab. in Brasil. merid. (*Burmeister*): Paraguayâ (*Azara*): Boliviâ, Chiquitos (*D'Orbigny*): Venezuelâ, Cumana (*Beauperthuy*), Caracas, (*Levraud*).

This well-known Crake appears to be widely spread over South America, as will be seen by the list of localities above given. It was first described by Azara, as an inhabitant of Paraguay, where, however, it does not appear to be very abundant. In the wood region of South-Eastern Brazil it is certainly a common species, many specimens being met with in the ordinary sets of birdskins sent from the vicinity of Rio and Bahia. In the marshes of this district also the Prince Max of Neuwied met with it, but gives us few particulars as to its habits, merely mentioning that it has a light flight and that its flesh is good to eat.

During a recent examination of the specimens belonging to this family of birds in the collection of the Jardin des Plantes we found skins of this species marked as having been obtained by d'Orbigny in the province of Chiquitos in Bolivia, and by M. M. Beauperthuy, and Levraud in Venezuela. The extension of its range so far northwards indicated by the two latter localities is a new fact to us, and seems somewhat strange, when we consider that the bird is not known to occur in Guiana nor in any part of the great basin of the Amazon.

Our figure of *P. melanophæa* is taken from a specimen in the collection of Messrs. Salvin and Godman which is of the ordinary Brazilian "make" and is probably from Rio or Bahia.

JULY, 1868.



PLATE LV.

PORZANA ALBIGULARIS.

(WHITE-THROATED CRAKE).

<i>Corethrura albigularis</i>	.	.	.	Lawrence, Ann. Lyc. N. Y. vii. p. 302.
"	"	.	.	Sci. and Salv. P.Z.S. 1864, p. 372.
<i>Porzana albigularis</i>	.	.	.	Sci. and Salv. P.Z.S. 1867, p. 280.

Suprà fusca, lateribus capitis et cervice posticâ castaneis: subtùs alba, pectore castaneo perfuso: hypochondriis, ventris lateribus et crisso albo nigroque transfasciatis: rostro olivaceo, pedibus fuscis: long. tota 5·5, alæ 2·9, caudæ 1·1, tarsi 1·1, rostri a rictu 0·9.

Hab. in Isthm. Panamá (*McLeannan*): Costâ Ricâ (*Arcé*): Mosquitâ (*Wickham*).

This little Crake is a northern representative of the foregoing species, but is distinguishable by well marked characters. The chestnut neck and breast, the regularly barred crissum and the smaller size render it easily recognizable when compared with its southern ally.

The White-throated Crake is one of Mr. McLeannan's numerous discoveries on the Isthmus of Panama, and was first described by Mr. Lawrence in 1861 from specimens transmitted to him by that well-known collector. The bird would appear to be not uncommon in this locality, Mr. McLeannan having likewise supplied the collection of Messrs. Salvin and Godman with several examples of it, from one of which our illustration has been prepared. In these figures it will be noticed that the wings are wholly unspotted, but it should be stated that one of the Panama skins shews black and white bars on the greater and lesser wing coverts, and that a second has some traces of the same character. These markings would, however, probably disappear in the adult bird.

Northwards of Panama we have traced the occurrence of this Crake into Costa Rica, whence a single specimen, obtained at Barranca on the gulf of Nicoya, has been transmitted to us by Arcé, and up the eastern coast of Central America as far as the Blewfields river, where Mr. Henry Wickham met with it during his excursion into the Mosquito territory.

JULY, 1868.



PLATE LVI.

PORZANA LEUCOPYRRHA.

(RED AND WHITE CRAKE).

<i>Ypecaha pardo acanelado y blanco</i>	Azara, Apunt. iii. p. 228, No. 375.
<i>Rallus leucopyrrhus</i> . . .	Vieill, N. D. xxviii. p. 550, et Enc. Meth. p. 1064.
" " . . .	v. Schreiber, Isis, 1823, p. 1063.
<i>Corethrura leucopyrrha</i> . . .	Hartl. Ind. Az. p. 24.
" " . . .	Gray, Gen. iii. p. 595.
" " . . .	Burm. La-Plata-Reise ii. p. 505.
<i>Corethrura hypoleucos</i> . . .	Licht. in Mus. Berol. : Nomencl. p. 96.
<i>Laterirallus hypoleucos</i> . . .	Bp. C. R. xliii. p. 599.

Fuscescenti-olivacea, capite rufescente, alis extus et caudâ cum dorso postico obscurioribus : subtus alba ; lateribus capitis cervicis et pectoris castaneis, hypochondriis albo nigroque transfasciatis : crisso medio nigro, lateraliter albo : rostro olivaceo, pedibus flavidis : long. tota 6·75, alæ 3·1, caudæ 1·9, tarsi 1·3, rostri a rictu 0·8.

Hab. in Paraguayâ (*Azara*) : rep. Argentinâ, Tucuman (*Burm.*) : Brasil. merid. (*Mus. Berol.*).

This species of Crake, though closely allied to *P. melanophæa*, was recognized by its discoverer Azara as distinct, and described under a separate name in his well-known work on the birds of Paraguay. Burmeister, almost the only other naturalist who has met with it, obtained specimens in the Province of Tucuman in the Argentine Republic, where, he tells us, it is usually seen in the early morning on the banks of rivers in marshy spots. Natterer also collected specimens of this bird somewhere in Southern Brazil, as has been recorded in the "Isis" for 1823, but his notes on this portion of his collection are not yet published, so that we cannot tell the exact locality. It would appear, however, from Lichtenstein's "Nomenclator" that this Rail occurs in Minas Geraes, whence a single example has been transmitted to the Berlin Museum. In form and general appearance *P. leucopyrrha* most nearly resembles *P. melanophæa*, but is readily distinguishable by its chestnut head and neck, by its black crissum, margined on each side with white, and by the generally purer and more extended white of the under surface.

Our figure of this bird is from a specimen in the collection of Messrs. Salvin and Godman, recently purchased from M. Verreaux, and stated to have been received from the Brazilian Province of Rio Grande.

There are four American Crakes, which have the back nearly uniformly coloured and the flanks barred, and constitute the section *Laterirallus* of Prince Bonaparte : namely

1. PORZANA HAUXWELLI, Pl. LIII, from the Upper Amazon.
2. PORZANA MELANOPHÆA, Pl. LIV, from S. E. Brasil, Paraguay, Bolivia, and Venezuela.
3. PORZANA ALBIGULARIS, Pl. LV, from Panama, Costa Rica, and Mosquitia.
4. PORZANA LEUCOPYRRHA, Pl. LVI, from S. Brazil, Paraguay and La Plata.

Ex Orn.

Plate .LVII.



$\frac{1}{2}$

J Smit lith.

M & N. Hanhart imp

FULICA ARDESIACA.

PLATE LVII.

FULICA ARDESIACA.

(TSCHUDI'S COOT).

<i>Fulica ardesiaca</i>	.	.	.	Tsch. Faun. Per. Aves, p. 303.
"	"	.	.	Scl. et Salv. P.Z.S. 1868, p. 464.
<i>Lysca ardesiacea</i>	.	.	.	Reich. Nat. Syst. p. xxi.
<i>Fulica chilensis</i>	.	.	.	Des Murs, in Gay's Fauna Chilena, viii., p. 474, Atlas, t. 10.
"	"	.	.	Hartl. Journ. f. Orn. 1853, Extra-h. p. 81.
"	"	.	.	Scl. P.Z.S. 1860, p. 82.
"	"	.	.	Scl. et Salv. P.Z.S. 1868, p. 176.

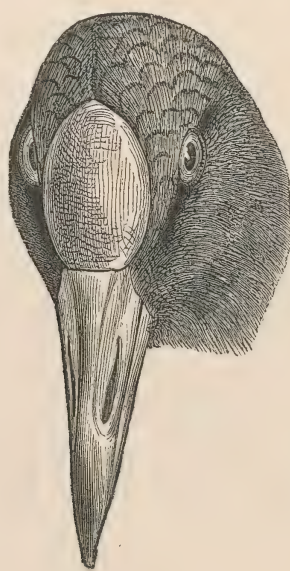
Obscurè schistacea: capite undique nigricante: flexurâ alari et remigis externi margine albis: crisso nigro lateraliter albo mixto: clypeo frontali tuberositatem parallelogrammicam formante, a rostro lineâ impressâ diviso: pedibus obscurè schistaceis: long. tota 16·5, alæ 8·5, caudæ 2·2, rostri a rictu 1·5, tarsi 2·6, dig. med. cum ungue 3·8.

Hab. in Boliviâ altâ (*D'Orb.*: *Cast.* et *Dev.*): in Peruviâ occidentali (*Tsch.* et *Whitely*): rep. Æquator. (*Fraser*).

The first satisfactory description of this Coot was given by Dr. Hartlaub in his excellent article on the birds of the genus *Fulica*, published in the "Extra-Heft" of Cabanis' "Journal für Ornithologie" for 1853, under the name *Fulica chilensis*, taken from Des Murs' MS. We have, however, ascertained by inspection of the type-specimen of *Fulica ardesiaca*, which has been kindly lent to us by M. Coulon, of Neuchatel, that the same bird had been previously described by Tschudi in his "Fauna Peruana," under the latter name. We, therefore, adopt Tschudi's appellation for this species, although his description is irrecoznizable, superseding the name *chilensis* with less regret, inasmuch as it seems to be very doubtful whether the bird has ever occurred in Chili.

The present species belongs to the second section of the genus *Fulica* as arranged by Dr. Hartlaub, in which the undertail-coverts are black with merely a slight white edging on each side. In this respect it resembles its gigantic neighbours of the same country, *F. gigantea* and *F. cornuta*. From the former it may be distinguished by its smaller size and olive-coloured feet, from the latter by the absence of the prominent caruncle on the forehead. In the present species, however, the head-shield projects considerably beyond the line of the culmen, and

forms an oblong protuberance, which is rounded off towards the vertical extremity, and divided from the base of the bill by a distinct line as shewn in the accompanying cut. The bend of



the wing in the present bird and a narrow margin of the basal portion of the outer primary are white. The specimen, now in the collection of Messrs. Salvin and Godman, from which our description and figure are taken, was procured on the lagoon of Tambo, in the month of November, 1857, by Mr. Henry Whitely. In this bird, the bill is marked "lavender-colour," and the head-shield "white." But this would appear to be different in the breeding season, as Dr. Hartlaub describes the head-shield as *red* in one of his specimens, and this is also the case in an example of this species in the collection of the British Museum.

The specimens of this species, in the Paris Museum, from which Hartlaub's description and Gay's figure were taken, were collected during the voyages of D'Orbigny and Castelnau and Deville in various parts of Bolivia. Those of the latter travellers are stated to have been procured in the vicinity of La Paz. Under these circumstances it appears strange that the name *chilensis* should have been applied to them; Gay's assertion, that this species is "very common" in that country being unquestionably incorrect.

On the lagoon of Tambo, in the valley of the same name on the western coast of Southern Peru, Whitely met with large numbers of this Coot, but found them shy and difficult to shoot. Tschudi informs us that the species occurs all along the western slope of Peru, from the sea-shore up to an elevation of 14,000 feet. In the lagoon of Junin he tells us it was very common, and was killed by the Indians, dried and kept for food.

The only other locality recorded for this species is the highlands of Ecuador between Riobamba and Mocha, where Fraser procured a single example in 1859. Fraser describes the frontal-shield of his specimen as "delicate orange blending into lemon at the sides and back," the bill as "flesh-coloured, the point being blueish," and the "legs and feet delicate slate-colour." Fraser's specimen is now in the Bremen Museum.

Our figure represents the bird reduced to one half its natural size.

AUGUST, 1868.

Ex. Orn.

Plate LVIII.



$\frac{1}{2}$

J. Smit. lith.

M & N. Harbort. imp.

FULICA ARMILLATA.

PLATE LVIII.

FULICA ARMILLATA.

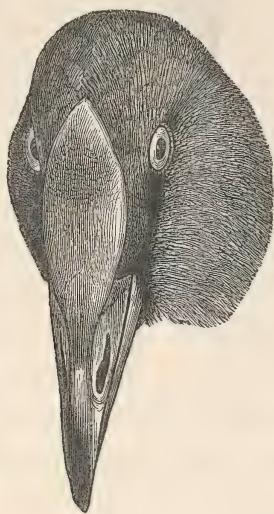
(RED-GARTERED COOT).

<i>Focha de ligas roxas</i>	.	.	.	.	Azara, Apunt. iii. p. 474, No. 448.
<i>Fulica armillata</i>	.	.	.	.	Vieill. N. D. xii. p. 47, et Enc. Meth. p. 343.
" "	.	.	.	.	Hartl. Ind. Az. p. 28, et Journ. f. Orn. 1853, Extra-h. p. 82.
" "	.	.	.	.	Burm. Syst. Ueb. iii. p. 390, et La-Plata-Reise, ii. p. 505.
" "	.	.	.	.	Scl. et Salv. P.Z.S. 1868, p. 465.
<i>Fulica chilensis</i>	.	.	.	.	Landbeck, Wieg. Arch. 1862, p. 221.
<i>Fulica frontata</i>	.	.	.	.	G. R. Gray, in Mus. Brit.
<i>Fulica gallinuloides</i>	.	.	.	.	King, Zool. Journ. IV. p. 96. (?)

Obscurè schistacea, capite toto nigricante: flexurâ alari et remigis externi margine albis: crisso albo, plumis quibusdam medialibus nigris: rostro flavo, maculis basalibus rubris: clypeo frontali magno, ovali, flavo, rubro marginato: pedibus maximis, flavicanti-olivaceis: tibiæ parte imâ et tarsis anticæ ruberrimis: long. tota 16·5, alæ 7·8, caudæ 2·0, rostri a rictu 1·4, tarsi 2·8, digiti medii cum ungue 4·0.

Hab. in Paraguayâ, (*Bonpland*): Brasil. merid. et rep. Argentinâ (*Burmeister*): Patagoniâ (*D'Orbigny*): Chiliâ (*Landbeck*).

This Coot is the largest species belonging to Dr. Hartlaub's third division of the genus, in which the undertail coverts are white with a small black median patch. It is also readily distinguishable by the great size of the feet and legs, particularly by the length of the middle toe, and by the bright red markings at the base of the yellow bill. The head-shield varies much in size in different individuals as will be seen by our figures, but is always broadly oval



at its upper termination. The bend of the wing and a rather broad margin of the outer web of the outer primary are white. The legs and feet are yellowish-olive, and the lower naked portion of the tibia and the front of the tarsus are described as coral-red in the living bird, but this colour fades away very much in the dried skin.

Azara, the original discoverer of this species, describes it in his well known work on the birds of Paraguay as the "Focha de ligas roxas," from the red markings on the legs. Azara met with it in the neighbourhood of Buenos Ayres. Professor Burmeister tells us that it is generally distributed over the lagoons of the Argentine Republic, and that he obtained specimens near Mendoza and again near Paraná. In Southern Brazil the same author, as quoted by Hartlaub, gives the province of Sta. Catherina as a locality for this species, but it does not seem to occur much further north—not being mentioned by Prince Max and other authorities upon Brazilian Ornithology.

In Chili *Fulica armillata* appears to be the commonest of the three species, which, according to Herr Landbeck, are so widely distributed and so numerous in the fresh waters of that country. Herr Landbeck has given us an excellent description of the bird, and many details as to its habits and history, but has unfortunately misidentified it with Gay's *Fulica chilensis*, which we have already shewn is the same as Tschudi's *F. ardesiaca*. In Southern Chili, Herr Landbeck informs us, this species and *F. leucoptera* are migratory, or at any rate leave the lakes in the winter, and keep more about the river-banks. In Northern Chili, however, this is not the case, the lakes there not being swollen by a rainy season.

We have examined the specimen in the British Museum upon which Mr. George Gray founded his MS. name *F. frontata*, and believe it to be merely an individual of the present



species with the head-shield extraordinarily developed, as shewn in our figure. We also think it probable that *Fulica gallinuloides* of King is referable to this same species, of which there are Patagonian specimens (obtained by D'Orbigny) in the Paris Museum.

Our figure of this Coot, which is reduced to half the size of nature, is taken from a Chilian specimen collected by the late Mr. Bridges in August, 1862, now in the Derby Museum, Liverpool. We have to record our great obligations to Mr. T. Moore and the authorities of that Institution for the loan of this and other examples of the same group of birds.

AUGUST, 1868.

Ex Orn

Plate LIX.



$\frac{1}{2}$

J. Smith lith.

M & N. Hanhart imp.

FULICA LEUCOPYGA.

PLATE LIX.

FULICA LEUCOPYGA.

(RED-SHIELDED COOT).

<i>Fulica leucopyga</i>	.	.	.	Licht. in Mus. Berol.
"	"	.	.	Hartl. Journ. f. Orn. 1853, Extra-h. p. 84.
"	"	.	.	Schlegel, Mus. d. P. B. <i>Ralli</i> , p. 64.
"	"	.	.	Scl. et Salv. P.Z.S. 1868, p. 467.
<i>Fulica rufifrons</i>	.	.	.	Landbeck, Wieg. Arch. 1862, p. 223.
<i>Fulica chloropoides</i>	.	.	.	King, Zool. Journ. IV, p. 95 (?)
"	"	.	.	Abbott, Ibis, 1861, p. 157.

Obscurè ardesiaca, capite toto nigricante: crisso albo, plumis quibusdam medialibus nigris: remigis externi margine concolore: rostri apice flavo, basi cum clypeo frontali ruberrimo; hoc angusto, suprâ acutè angulato; pedibus olivaceis: long. tota 16·0, alæ 6·8, caudæ 2·4, rostri a rictu 1·3, tarsi 3·2, dig. med. cum ungue 3·5.

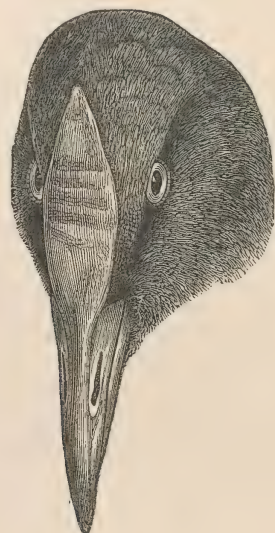
Hab. in rep. Uruguayensi (*Sellow*): Chiliâ (*Landbeck*): Patagoniâ (*King*): Inss. Falklandicis (*Mus. Brit.*).

In a letter addressed to Mr. Vigors, and subsequently published in the fourth volume of the 'Zoological Journal,' the late Captain King gave some very short and insufficient descriptions of supposed new species of birds discovered during his survey of the Magellan-Straits in 1826. Amongst the birds thus characterized as new to science were two Coots, named by Capt. King *Fulica chloropoides* and *F. gallinuloides*. In order to ascertain positively what species were designated by these names it would be necessary to inspect the typical specimens, which, if ever sent home to this country, have unfortunately disappeared. It is only, therefore, by a process of guess-work, that we can refer *F. gallinuloides* of King to *F. armillata* and his *F. chloropoides* to the present bird.

It would not, however, be right to allow Capt. King's name, which can only be conjecturally applied to this Coot, to supersede the appellation under which Dr. Hartlaub described it in 1860, in his already mentioned memoir upon this group. Dr. Hartlaub adopted for the bird the name *leucopyga*, by which it had been designated by Lichtenstein in the Berlin Museum. It is true this is by no means a specially appropriate name, inasmuch as it would apply equally well to three or four other species of the genus, but this is not a valid reason for rejecting it.

In 1862 Herr Landbeck, Sub-director of the Museum of Santiago in Chili, being unfortunately unacquainted with Dr. Hartlaub's article, redescribed this species under the name *Fulica rufifrons*.

This Coot is very readily distinguishable from other known species by the peculiar shape of the frontal shield, which is narrow and elongated, and instead of being rounded above,



terminates in an acute angle, as shewn in our figure. In the living bird this shield is described as of a dark blood-red, and it appears to retain nearly the same colour in the dried skin. A second character, which absolutely distinguishes this Coot from all others of the white-rumped section, is the absence of the white margin of the first primary. There are, however, a few whitish edgings to the small feathers on the bend of the wing.

This Coot appears to have nearly the same distribution as *Fulica armillata*. Although it has not yet been recorded from the Argentine Republic, it must certainly occur there, if the locality of Uruguay, given by Hartlaub on the authority of Sellow, is correct. In Chili it is one of the three species of which Herr Landbeck has given us such an excellent account. The late Mr. Bridges likewise obtained specimens of it in Chili, from one of which, now in the Derby Museum at Liverpool, our figure has been prepared. King's *Fulica chloropoides*, if we are right in referring it to this species, was obtained in Patagonia. There is a specimen of this bird in the British Museum said to have been obtained during the surveying-voyage of the "Erebus and Terror" in the Falkland Islands, and in 1859 Capt. Abbott shot a single example, believed to have been of this species, in the same country.

Our figure of this bird, as likewise of the other Coots in this Part, is one half of the size of nature.

AUGUST, 1868.



$\frac{1}{2}$

J. Smit lith

FULICA LEUCOPTERA.

M & N. Henhart, imp.

PLATE LX.

FULICA LEUCOPTERA.

(STRICKLAND'S COOT).

<i>Focha</i>	.	.	.	.	.	Azara, Apunt. iii. p. 472, No. 447.
<i>Fulica leucoptera</i>	.	.	.	.	.	Vieill. N. D. xii. p. 48; et Enc. Méth. p. 343.
"	"	.	.	.	.	Hartl. Ind. Az. p. 28.
"	"	.	.	.	.	Scl. et Salv. P.Z.S. 1868, p. 468.
"	"	.	.	.	.	Burm. La-Plata-Reise, iii. p. 505.
<i>Fulica stricklandi</i>	.	.	.	.	.	Hartlaub, Journ. f. Orn. 1853, Extrah. p. 86.
<i>Fulica chloropoides</i>	.	.	.	.	.	Landbeck, Wieg. Arch. 1862, p. 218.

Obscurè ardesiaca, capite undique nigricante: crisso albo, plumis quibusdam medialibus nigris: flexurâ alari et remigis externi margine angusto necnon secundariorum quorundam apicibus albis: rostro flavo, clypeo frontali minore, supra rotundato, aurantiaco: pedibus olivaceis: long. tota 15.0, alæ 7.8, caudæ 2.3, rostri a rictu 1.25, tarsi 2.4, dig. med. c. ungue 3.5.

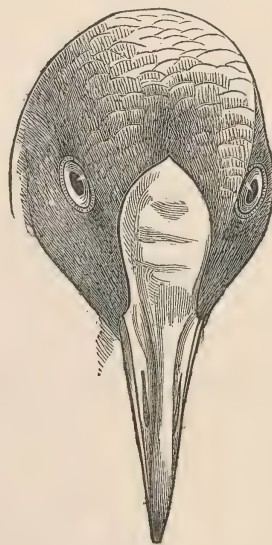
Hab. in Paraguayâ et rep. Argentinâ (*Azara*): rep. Uruguayensi (*Sellow*): Paranâ (*Burmeister*): Boliviâ int. (*Behn*): Chiliâ (*Landbeck*).

We think there can be no doubt that this species of Coot, which was first correctly described by Dr. Hartlaub in 1853, and proposed to be called *F. stricklandi*, is the same as that termed by Azara in 1852 "*La Focha*," upon which Vieillot established his *F. leucoptera*. We have, therefore, followed Burmeister in using the latter name, and trust that our excellent friend Dr. Hartlaub will excuse us for doing so.

Azara obtained specimens of this bird in Paraguay and in the vicinity of Buenos Ayres. Burmeister met with it on the lagoons near Paranâ in the Argentine Republic. Sellow transmitted examples to the Berlin Museum from the vicinity of Santa Lucia in the republic of Uruguay. Professor Behn of Kiel, as we are informed by Dr. Hartlaub, shot a specimen of it in the month of June on a pool near San Miguel in the Bolivian Province of Chiquitos. It would thus appear that this species has a considerable range over the southern portion of South America on this side of the Andes. Westward of the great mountain-chain it is one of the three Chilian species concerning which Herr Landbeck has lately given us so many interesting details, but we do not know how far it ranges to the south upon this coast.

Fulica leucoptera is easily distinguishable from all its South American congeners by having the ends of the first five or six secondaries next adjoining the primaries tipped with white, resembling in this particular the northern *F. americana*. The white margin to the outer

primary in this species is very narrow, but quite discernible. These two characters and the different form of the head-shield, which is broadly rounded at the upper extremity will serve to



separate it from *F. leucopyga*.

Our figure of this Coot is taken from the typical specimen of Dr. Hartlaub's *Fulica stricklandi* which has been kindly lent to us from the treasures of the Bremen Museum.

Besides the species here figured we are acquainted with three other American Coots, making altogether seven of this genus in the New World—namely

1. *FULICA CORNUTA*.

Fulica cornuta, Bp. Compt. Rend. xxxvii. p. 925, (1853): Hartl. J. f. Orn. 1853, Extra-h. p. 82: *Lycornis cornuta*, Bp. C. R. xliii. p. 600: ex Bolivia.

2. *FULICA GIGANTEA*.

Fulica gigantea, Eyd. et Soul. Voy. Bon. Zool. p. 102, t. 8: Tsch. F. P. p. 302: Hartl. J. f. Orn. 1853, Extra-h. p. 80: *Phalaris gigantea*, Reich. Nat. Syst. p. xxi: ex Peruvia altâ.

3. *FULICA AMERICANA*.

Fulica americana, Gm.: Baird, Birds N. Am. p. 751: Hartl. J. f. Orn. 1853, Extra-h. p. 87: ex Americâ Bor. univ. Americâ Centr. et inss. Antillensibus.

The following table, taken from our paper on the American Rallidæ recently read before the Zoological Society, may assist in determining these seven species.

A. Clypeo frontali carunculato	1. <i>cornuta</i> .
B. Clypeo frontali non-carunculato:	
a' crisso præcipuè nigro, lateraliter albo mixto:	
major, flexurâ alari nigrâ	2. <i>gigantea</i> .
minor, flexurâ alari albâ	3. <i>ardesiaca</i> .
b' crisso præcipuè albo, medialiter nigro	
a'' secundariis omminò concoloribus:	
margine alari albo	4. <i>armillata</i> .
margine alari concolore	5. <i>leucopyga</i> .
b'' secundariis albo terminatis:	
major: rostro flavo	6. <i>leucoptera</i> .
minor: rostro rubro notato	7. <i>americana</i> .

AUGUST, 1868.

Exc. Orn.

Plate .LXI.



J. Smit. lith.

$\frac{2}{3}$

M&N Hamhart imp

LEUCOPTERNIS SEMIPLUMBEUS.

PLATE LXI.

LEUCOPTERNIS SEMIPLUMBEA.

(SEMIPLUMBEOUS BUZZARD).

Leucopternis semiplumbeus . . . Lawr. Ann. Lyc. N. Y. vii. p. 288.

Suprà plumbea, alis caudâque nigricantibus: hujus fasciis duabus angustis, alterâ inferiore perfectâ, alterâ superiore imperfectâ, cum toto corpore subtus albis: rostro nigro, basi et cerâ cum pedibus aurantiacis; unguibus nigris: long. tota 14.0, alæ 8.0, caudæ 5.0, rostri a rictu 1.1, tarsi 2.2.

Hab. in Isthmo Panamensi (*McLeannan*): rep. Costa-Ricensi (*Carmioli*).

In 1861 Mr. George N. Lawrence described this distinct species of Buzzard from a single specimen obtained by Mr. J. McLeannan on the Panama railway-line. The bird, however, remained quite unknown to us until a short time since, when we had the gratification of recognizing a single individual in a Costa-Rican collection received from Mr. J. Carmiol. This skin, from which our figure (reduced to two-thirds of the natural dimensions) has been prepared, is now in the collection of Messrs. Salvin and Godman. It was procured at Valza in Costa Rica in February of the present year. It is marked as a female, but appears to be rather smaller in dimensions than the specimen described by Mr. Lawrence.

In form *Leucopternis semiplumbea* appears to be a typical species of this genus, but is easily recognizable by its small size, and by the uniform plumbeous colour of the whole upper surface. There are some slight indications of narrow shaft-stripes on the neck, but the plumage below is otherwise of a pure white. The under-wing-coverts and greater part of the remiges below are of the same spotless colour, but the apical portions of the latter are slaty with darker margins and cross-bands. The fifth primary is rather longer than the fourth, and longest—the first being shorter than the secondaries and measuring 5.8 in. from the carpal joint.

The known species of *Leucopternis* are eight in number. We have now seen specimens of all of them, and propose to arrange them as follows:—

A—Corpore subtus omninò albo.

a. capite toto albo.

1. L. GHIESBREGHTI.

Buteo ghiesbreghti, Du Bus, Esq. Orn. t. 1: Sc. & Salv. Ibis, 1859, p. 217: Sc. P.Z.S. 1857, p. 227: Salv. P.Z.S. 1867, p. 158: Lawr. Ann. Lyc. N. Y. vii., p. 288: Cab. J. f. Orn. 1853, p. 38. *Asturina ghiesbreghti*, Schl. Mus. des P. B. *Asturina*, p. 11.

Hab. America centralis a Mexico merid. ad isthm. Panamensem.

2. L. PALLIATA, tab. XLIX., p. 97.

Hab. Brasilia meridionalis.

3. L. SCOTOPTERA.

Buteo scotopterus, Max. Beitr. iii., p. 204: Burm. Syst. Ueb. ii., p. 51. *Leucopternis scotoptera*, Pelz. Verh. Zool.-Bot. Ges. Wien, 1862, p. 19, et Orn. Bras. p. 3. *Asturina scotoptera*, Schl. Mus. d. P. B. *Asturina*, p. 10. *Falco lacernulatus*, Temm. Pl. Col. 437. *Leucopternis lacernulatus*, Bp. Consp. I., p. 19.

Hab. Brasilia meridionalis.

4. L. ALBICOLLIS.

Falco albicollis, Lath. Ind. Orn. p. 36. *Buteo albicollis*, Taylor, Ibis, 1864, p. 79. *Leucopternis albicollis*, Pelz. Verh. Zool.-Bot. Ges. Wien. 1862, p. 140, et Orn. Bras. p. 3. *Asturina albicollis*, Schl. Mus. des P. B. *Asturina*, p. 9. *Falco pæcilonotus*, Temm. Pl. Col. 9. *Buteo pæcilonotus*, Leotaud, Ois. de Trinidad, p. 7. *Buteo melanotus*, Vieill. N. D. iv. p. 472, et Enc. Meth. iii., p. 1221; Puch. Rev. Zool. 1850, p. 84.

Hab. Amazonia, Venezuela, et ins. Trinitatis.

b. capite nigro striato.

5. L. MELANOPS.

Falco melanops, Lath. Ind. Orn. p. 37: Temm. Pl. Col. 105. *Buteo melanops*, Schl. Mus. d. P. B. *Asturina*, p. 10. *Leucopternis melanops*, Bp. Consp. I. p. 19: Pelz. Verh. Zool.-Bot. Ges. Wien, 1862, p. 140, et Orn. Bras. p. 3.

Hab. Guiana et Amazonia.

6. L. SUPERCILIARIS, tab. XXXVIII., p. 75.

Hab. Amazonia.

c. capite supra plumbeo, dorso concolore.

7. L. SEMIPLUMBEA, tab. LXI., p. 121.

Hab. Isthmus Panamensis et Costa Rica.

B.—Corpore subtus albo, plumbeo transfasciato.

8. L. PRINCEPS.

Leucopternis princeps, Scl. P.Z.S. 1865, p. 429, t. xxxiv.

Hab. Costa Rica.

AUGUST, 1868.

Exc. Orn.

Plate, LXII.



J. Smit lith.

M & N Harhart, imp.

GEOTRYCON CHIRIQUENSIS albifacies -

PLATE LXII.

GEOTRYGON CHIRIQUENSIS.

(CHIRIQUIAN GROUND-PIGEON).

<i>Geotrygon chiriquensis</i>	.	.	.	Sclater, P.Z.S. 1856, p. 143.
"	"	"	"	Salvin, P.Z.S. 1867, pp. 130, 159.

Suprà saturatè castaneo-brunneus, interscapulio purpurascente tincto: pileo toto schistaceo, frontem versus dilutiore: faciei lateribus albicantibus, a gulâ albâ lineâ irregulari nigrâ divisus: subtùs cinnamomeus, pectore toto et lateribus cum tectricibus subalaribus castaneis: remigibus alarum schistacescenti-nigris; caudâ suprà fere concolore, subtùs nigricante, cinnamomeo terminatâ: rostro nigro, mandibulæ basi et pedibus rubris: long. tota 11·5, alæ 6·0, caudæ 4·0, tarsi 1·6.

Hab. in Veragua (*Bridges et Arcé*).

Since preparing our article upon the Ground-pigeon figured in Plate XXXIX of this work as *Geotrygon chiriquensis*, we have received in one of Arcé's collections from Veragua the bird we now figure under the same name, which is without any doubt the rightful owner of the appellation, while the former ought to be called *Geotrygon albifacies*. So soon as we saw the present bird we suspected that a fresh mistake had been added to the long list of errors connected with the White-faced Ground-pigeon of Mexico and Guatemala, in regarding it as identical with *Geotrygon chiriquensis*. For it was obvious at first sight that the bird just arrived from Veragua was quite distinct, and it was hardly probable that the two allies would occur in the same country. Our suspicion was converted into certainty, when, on a recent visit to Paris, we had the satisfaction of finding the original type of Sclater's description of *Geotrygon chiriquensis*, which was formerly in the collection of the late Prince Bonaparte, but has lately been transferred to the Gallery of the Jardin des Plantes.

It remains, therefore, only to ask pardon for our error, and as some atonement for it to present our readers with a figure and description of the true *Geotrygon chiriquensis*, taken from Arcé's specimen, which is now in Messrs. Salvin and Godman's collection. At the same time we request them to alter the title of Plate XXXIX to *Geotrygon albifacies*.

The original specimen of Sclater's *Geotrygon chiriquensis* was obtained by the late Mr. Bridges in 1856 near David in Southern Veragua. Arcé's skins were collected at Castillo and Calovevora in the northern slope of the same country, but rather more to the eastward. We are not aware that the species has been met with by other collectors.

Geotrygon chiriquensis is easily distinguished from *G. albifacies* by the uniform slaty colour of the top of the head and nape, the latter in *G. albifacies* being purplish like the back;

by the much darker colouring of the body below, particularly on the breast and sides; and by the absence of the curious scale-like feathers on the front and sides of the neck, which, as far as we know, are peculiar to *G. albifacies*.

As regards the description of *G. chiriquensis* given by Bonaparte (Compt. Rend. XLIII, p. 943) which originally led us into error, we are still in doubt whether it was meant for the true *G. chiriquensis*, or for *G. albifacies*. It would appear most applicable to the former, but if the specimen was really received from Jalapa, was no doubt intended for the latter. The other synonyms of these two species may, we believe, be correctly stated as follows:—

(1) *G. ALBIFACIES*, TAB. XXXIX.

Peristera mexicana, Gray, List of Spec. in B. M., iii., p. 15 (1844). *Peristera albifacies*, Gray, List of Spec. of Colombæ in B. M., p. 55 (1856). *Geotrygon albifacies*, Sel. et Salv. Ibis, 1860, p. 401. *Geotrygon chiriquensis*, Sel. P.Z.S. 1857, p. 206: Sel. et Salv. Ex Orn. t. XXXIX., p. 77.

Hab. Mexico meridionalis et Guatemala.

Diagn. Pileo summo cærulescenti-griseo antice albicante, postice sicut in dorso rufescenti-cinnamomeo: gutturis plumis angustatis, colorem plumarum inferiorem obscurum ostendentibus: pectore pallide cinnamomeo.

(2) *G. CHIRIQUENSIS*, TAB. LXII.

Geotrygon chiriquensis, Sel. P.Z.S. 1856, p. 143. Salv. P.Z.S. 1867, pp. 130, 159.

Hab. Veragua.

Diagn. Pileo toto et nuchâ schistaceis, fronte dilutiore: gutturis plumis normalibus: pectore castaneo.

AUGUST, 1868.



J. Smit lith.

M&N Hankart imp

CARDINALIS PHŒNICEUS.

PLATE LXIII.

CARDINALIS PHÆNICEUS.

(VENEZUELAN CARDINAL).

<i>Cardinalis phæniceus</i>	.	.	.	Bp. P.Z.S. 1837, p. 111, et Consp. I. p. 501.
"	"	.	.	Scl. Cat. Am. B. p. 100.
"	"	.	.	Scl. et Salv. P.Z.S. 1868, p. 170.

Coccineus, loris et mento nigris, alis intus fuscis, extus cum interscapulio et caudâ testaceo-rubris: cristâ elongatâ coccineâ: rostro pallidè corneo, pedibus fuscis: long. tota 7·0, alæ 3·4, caudæ 3·3, tarsi ·95. *Fem.* Suprà fusco-cinerea, cristâ elongatâ nigricante, coccineo tinctâ, loris et mento nigricantibus: subtus ochracea; caudâ schistaceâ, coccineo pèrfusâ.

Hab. in Venezuelâ littorali (*Goering*).

The Venezuelan Cardinal is a beautiful representative of the well-known northern species, the "Red-bird" or "Virginian Cardinal" of the United States. It is of nearly the same form, but is readily distinguishable by its smaller size, longer crest, and the want of the black band on the forehead.

This bird was first described by the late Prince Bonaparte in a paper published in the Zoological Society's "Proceedings" for 1837, under the MS. name applied to it by Mr. Gould in his collection. The habitat there given is somewhat vague, being described as "the country southward of the Bay of Honduras." We are, however, enabled to state with certainty that its true *patria* is the littoral of Venezuela. Mr. Anton Goering's first collection from this district, of which we have lately given an account in the Zoological Society's "Proceedings" contained a pair of this fine species. Mr. Goering, who obtained these birds in the vicinity of Carupano, informs us that it is strictly confined to the neighbourhood of the coast, being never met with beyond a few leagues in the interior.

Our figure of the male of this bird is from a specimen purchased of Verreaux, that of the female from the example obtained by Mr. Goering as above-mentioned. Both these birds are now in Sclater's collection.

The only well-established species of Cardinal besides the present is the Virginian Cardinal, which extends from the Southern United States through Mexico to Yucatan and Belize. Our friend Professor Baird has separated the western bird obtained by Mr. John Xanthus at Cape St. Lucas in Lower California under the name *Cardinalis igneus* (Proc. Acad. Phil. 1859, p. 305, and Elliot B. N. Am. Part I, t. iv.) But judging from a specimen in Sclater's collection and from the characters assigned to it by the describer, we can scarcely regard this as more than a slight local race of *C. virginianus*.

AUGUST, 1868.



J. Smith lith.

M. & N. Harzert, imp.

Fig. 1. PYRGISOMA RUBRICATUM.
Fig. 2. ~~~~~ LEUCOTE.

PLATE LXIV. Fig. 1.

PYRGISOMA RUBRICATUM.

(RED-NAPED GROUND-FINCH).

<i>Tanagra rubricata</i>	. . .	Licht. in Mus. Berol.
<i>Atlapetes rubricatus</i>	. . .	Cab. Mus. Hein. i. p. 140.
<i>Melospiza rubricata</i>	. . .	Cab. J. f. Orn. 1860, p. 413, et 1866, p. 234.
<i>Pyrgisoma xanthusi</i>	. . .	Lawrence, Ann. Lyc. N. Y. viii., p. 480.
<i>Pyrgisoma rubricatum</i>	. . .	Scl. et Salv. P.Z.S. 1868, p. 326.

Suprà cinereum fusco vix tinctum; pileo postico cum nuchâ et lineâ cervicali utrinque ad gulam extensâ rufis: maculâ ante-oculari et ciliis oculorum albis: fronte et facie sub oculis nigricanti-schistaceis: plumis auricularibus dorso concoloribus: subtus album, plagâ pectorali nigrâ, crisso rufescente, hypochondriis dorso concoloribus: subalaribus et flexurâ alari albis: rostro nigro, pedibus pallidè corylinis: long. tota 7.0, alæ 3.2, caudæ 3.0, tarsi 1.0. *Fem.* mari similis, sed paulò minor.

Hab. in Mexico Meridionali, in terrâ frigidâ: La Puebla (*Boucard*): Colima (*Xanthus*).

This Ground-finch is one of the many Mexican species in the Berlin Museum named but never described by the late Professor Lichtenstein. Although discovered probably some thirty or forty years ago, it was not characterized until 1851, when Dr. Cabanis gave a short description of it in a foot-note to the first volume of his "Museum Heineanum" from a specimen stated to have been obtained at Real-Arriba in Central Mexico, and placed it in the genus *Atlapetes*. It is very difficult to define the exact limits between the nearly allied forms of Ground-finches denominated *Atlapetes*, *Pyrgisoma*, *Pipilo* and *Chamæospiza*, but it seems better to associate the present species with *Pyrgisoma biarcuatum*, as subsequently suggested by Dr. Cabanis.*

We have not seen specimens of Professor Baird's *Pyrgisoma xanthusi* lately described by Mr. Lawrence from examples obtained by Xanthus in the plains of Colima in Western Mexico, but have little doubt, that it must be referred to *P. rubricatum*, the more so as the author appears to have altogether overlooked Dr. Cabanis' description of the latter. The only species of *Pyrgisoma* at all resembling the present bird in colouring is the true *P. kieneri* of Bonaparte, of which we propose to give a figure in our next number. But it should be recollected that, as we have already shewn †, there has been a series of errors respecting this latter bird, and that the species called *P. kieneri* by Mr. Lawrence is our *P. cabanisi*.

During his recent travels in Southern Mexico M. Adolphe Boucard obtained specimens of *P. rubricatum* at Atlisco in the highlands of the State of La Puebla. A pair of these are now in Messrs. Salvin and Godman's collection, from the male of which our figure has been taken.

* Journ. f. Orn. 1860, p. 412.

† P.Z.S. 1868, p. 325.

PLATE LXIV. Fig. 2.

PYRGISOMA LEUCOTE.

(WHITE-EARED GROUND-FINCH).

<i>Chamæospiza torquata</i>	.	.	.	Scl. et Salv. Ibis, 1860, p. 274, (err.)
<i>Melozona leucotis</i>	.	.	.	Cab. J. f. Orn. 1860, p. 413.
" "	.	.	.	Cassin, Pr. Ac. Phil. 1865, p. 169.
<i>Pyrgisoma leucote</i>	.	.	.	Salvin, Ibis, 1866, p. 205.
" "	.	.	.	Scl. et Salv. P.Z.S. 1868, p. 326.

Suprà fuscum, dorso superiore cinerascens tincto: pileo medio cinereo, utrinque nigro; loris, ciliis oculorum et regione auriculari albis, hac nigro circumdatâ; strigâ post-oculari utrinque cum torque cervicali postico conjunctâ et flexurâ alari flavicanti-olivaceis: subtus cinereum, medialiter albicans; gutture toto et plagâ pectoris medii nigris: crisso rufescente, hypochondriis eodem colore perfusis: rostro nigro, pedibus corylinis: long. tota 7.0, alæ 2.9, caudæ 2.8, tarsi 1.1.

Hab. in Costa-Ricâ et Guatemalâ.

One of Salvin's favourite shooting-grounds, when he was resident at Dueñas in Guatemala, was the slope of the Volcan de Fuego, which rises over the village to a height of upwards of thirteen thousand feet above the sea-level. Here it was, in September, 1859, that the first specimen of the present Ground-finch was obtained. This example, however, being in quite immature plumage, was wrongly referred to *Chamæospiza torquata*. In his succeeding visits to Dueñas Salvin collected other skins of this bird in perfect plumage, but before our error was detected, Dr. Cabanis had already described the species from Costa-Rican specimens transmitted to the Berlin Museum by Hoffman and v. Frantzius.

In habits *P. leucote* much resembles *P. biarcuatum*—one of the most familiar species in the highlands of Guatemala. It is generally seen on or near the ground in the scrubby forests which cover the eastern slopes of the volcano up to an elevation of six thousand feet. It seeks its food amongst the dead leaves, which it scratches about vigorously with its strong feet. It does not appear to be widely distributed, not having been met with by Salvin in other parts of Guatemala, but it may be mentioned that the collection of M. Bocourt recently transmitted to Paris contains a single skin of this species, which was probably obtained in Vera Paz.

Our figure of this bird is from one of Salvin's skins obtained on the slopes of the Volcan de Fuego below the village of Alotenango in 1862. The irides, according to Hoffmann's notes as given by Dr. Cabanis, are coloured yellow.

AUGUST, 1868.



J. Smith lith.

M & N Banhart imp

Fig. 1. PYRGISOMA CABANISI.
Fig. 2. ————— KIENERI.

PLATE LXV. (Fig. 1.)

PYRGISOMA CABANISI.

(CABANIS' GROUND-FINCH).

<i>Melozona biarcuata</i>	. . . . .	Cab. J. f. O. 1860, p. 412.
<i>Pyrgisoma kieneri</i>	. . . . .	Cassin, Proc. Acad. Phil. 1865, p. 169; Lawrence, Ann. L. N. Y. viii. p. 481.
<i>Pyrgisoma biarcuatum</i> et <i>P. kieneri</i>	. . . . .	Lawr. Ann. L. N. Y. ix, p. 103.
<i>Pyrgisoma cabanisi</i>	. . . . .	Scl. et Salv. P. Z. S. 1868, p. 324.

Supra fuscum, pileo et plumis auricularibus castaneis: fronte nigrâ, loris et regione oculari albis: subtus cinereum, medialiter album, strigâ utrinque rictali et plagâ pectorali mediâ nigris: subalaribus albis: rostro nigro, pedibus corylinis: long. tota 5·5, alæ 2·8, caudæ 2·3, rostri a rictu 0·6, tarsi 1·0.

Hab. in Costâ Ricâ (*Hoffmann*).

Although several eminent Naturalists have met with specimens of this Ground-Finch they have in every case identified it wrongly. These errors have been mainly caused by the confusion which has hitherto prevailed concerning the bird characterized in Bonaparte's "Conspectus" under the name *Pyrgisoma kieneri*. This vexata quæstio we have already attempted to solve in a lately published article in the "Proceedings of the Zoological Society of London," and we hope to set all doubts upon the subject completely at rest on the present occasion.

Dr. Cabanis, the first describer of this species, called it *Melozona biarcuata*, believing it to be the same as the common Guatemalan *Pyrgisoma biarcuatum* to which we have already alluded. From this bird, however, it is easily distinguishable by its wholly red ear-coverts and distinct pectoral spot. Our American friends Messrs. Cassin and Lawrence have both wrongly referred this *Pyrgisoma* to the succeeding species *P. kieneri*, from which we shall point out its distinctions below. Under these circumstances we have proposed for it the new name *cabanisi*, after the well-known Editor of the "Journal für Ornithologie."

As far as we know the range of this Ground-Finch is restricted to the highlands of Costa Rica, whence the original specimens were sent to the Berlin Museum by Drs. Hoffmann and Ellendorf. These were collected in the vicinity of San José, where the bird is stated to be not uncommon. Other examples have since been obtained in the same neighbourhood by the Messrs. Carmiol, as recorded by Mr. Lawrence in his recently published catalogue of the birds found in Costa Rica. There is likewise a single stuffed specimen of this species in the gallery of the Paris Museum, but no locality is attached to it.

Our figure of this bird is taken from one of Dr. Hoffmann's skins, now in Sclater's collection, which was received in exchange from the Berlin Museum.

DECEMBER, 1868.

PLATE LXV. (Fig. 2.)
PYRGISOMA KIENERI.
 (KIENER'S GROUND-FINCH).

Pyrgisoma kieneri Bp. Consp. i. p. 486.
 " " Sclat. et Salv. P. Z. S. 1868, p. 325.

Fuscum, pileo et capitis lateribus rufis: plumis auricularibus dorso concoloribus, harum autem apicibus castaneis, loris albescentibus, fronte et genis fuscescenti-nigris: subtus album, hypochondriis dorso concoloribus, maculâ pectorali indistinctâ nigrâ; crisso rufescente; rostro nigricanti-corneo, pedibus pallide corylinis: long. tota 7·3, alæ 3·3, caudæ 2·9, tarsi 1·0.

Hab. in Mexico Occident. (?)

The figure we now give of the *Pyrgisoma kieneri* of Bonaparte, which by the kind permission of the authorities of the Jardin des Plantes of Paris has been taken from the type-specimen belonging to that institution, will, we think, convince Ornithologists that this bird is perfectly distinct from *P. cabanisi* with which, as already stated, it has been frequently confounded. In general plumage, in fact, it is much more like *P. rubricatum*, figured on the preceding plate, but is distinguishable from that species by its larger size, stouter bill, and much stronger feet and tarsi. *P. rubricatum* also differs in possessing a white eye-ring, which is wanting in the present species, and in having the summit of the head brown like the back instead of bright rufous. It was no doubt the much stronger conformation of this species that induced Prince Bonaparte subsequently to remove it from *Pyrgisoma* and to associate it with the Brown Pipilos (*P. fuscus*, &c.) as a separate genus *Kieneria*.* It is, in fact, rather difficult to decide whether to arrange *Pyrgisoma kieneri* with the other *Pyrgisomas* or with these Pipilos. Upon the whole, we prefer to adopt the former course, as it would be unnatural to dissociate it from *P. rubricatum*, with which it so closely agrees in plumage. But *P. rubricatum* is certainly a typical species of *Pyrgisoma*, as is allowed by all writers upon the group.

It is unfortunate that we are unable to give the exact habitat of *P. kieneri*. The type-specimen, which as far as we know is unique, is marked as having been procured in May 1843, during the expedition of the "Danaide" by M. Jaurès, but no locality is attached to the label. It was, however, in all probability obtained on some part of the western coast of Mexico.

The five species of *Pyrgisoma* known to us may be arranged as follows:—

Sect. a. *Species pileo castaneo, gutture albo.*
 a'. *pectore immaculato.*

1. PYRGISOMA BIARCUATUM.
Pyrgita biarcuata, Prév. Voy. Vénus, Ois. t. 6.
Pyrgisoma biarcuatum, Bp. Consp. p. 486; Scl. & Salv. Ibis, 1859, pp. 5, 18; P. Z. S. 1868, p. 325.
Hab. Guatemala.
2. PYRGISOMA CABANISI, nobis. (t. lxv. fig. 1.)
Hab. Costa Rica.
3. PYRGISOMA RUBRICATUM. (t. lxiv. fig. 1.)
Hab. Mexico, Plains of Colima (*Xanthus*); Atlisco (*Boucard*).
4. PYRGISOMA KIENERI. (t. lxv. fig. 2.)
Hab. Western Mexico (?).
5. PYRGISOMA LEUCOTE. (t. lxiv. fig. 2.)
Hab. Costa Rica (*Hoffmann, Carmiol*); Guatemala (*Salvin*).

* Compt. Rend. xl. p. 356. (1855).

DECEMBER, 1868.

Ex Orn.

Plate LXVI



J. Smit del.

M & N Hanhart imp

OXYRRHAMPHUS FRATER

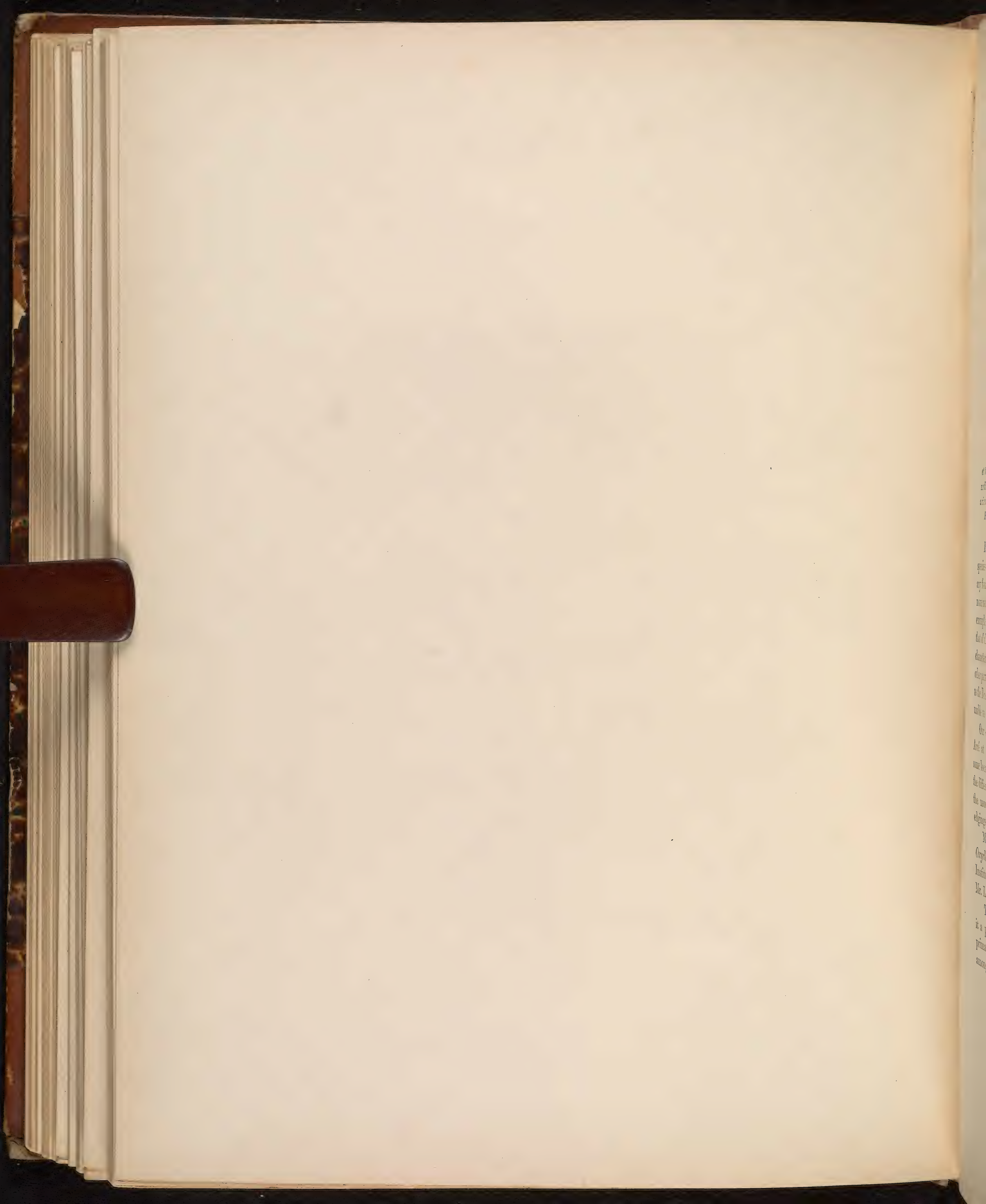


PLATE LXVI.

OXYRHAMPHUS FRATER.

(SHORT-TAILED OXYRHAMPHUS).

<i>Oxyrhynchus flammiceps</i>	. . .	Lawr. Ann. L. N. Y. ix. p. 106.
<i>Oxyrhamphus frater</i>	. . .	Sclat. et Salv. P. Z. S. 1868, p. 326.

Clare viridis; pileo nigro variegato, cristâ mediali coccineâ: alis caudâque nigris extus viridi limbatis; secundariorum et tectricum marginibus externis et caudæ apice extremâ pallide flavis: subtus pallide flavus, nigro squamatus, ventris medii et crissi maculis fere evanescentibus: rostro corneo, pedibus plumbeis: long. totâ 6.5, alæ 3.5, caudæ 2.1, rostri a rictu 0.85, tarsi 0.8.

Hab. in Veraguâ (*Arcé*): Costâ Ricâ (*v. Frantzius*.)

It is a remarkable fact that in some cases the fauna of Central America presents us with species more intimately allied with those of the wood-region of South Eastern Brazil than with any found in the intermediate country. For instance, *Neomorphus salvini* of Veragua is much more nearly allied to *N. geoffroyi* of Brazil than to *N. rufipennis* of Guiana. But no more striking example of the recurrence of Brazilian forms north of the Isthmus of Panama can be given than that of the present species. *Oxyrhamphus* has been hitherto justly regarded as one of the most characteristic types of the Ornis of South Eastern Brazil, and as absolutely unknown in every other part of the neotropical region. But now we find in Veragua a species so closely allied to the Brazilian form that even the experienced eye of our friend Mr. G. N. Lawrence was unable to detect the differences.

Our original description of *Oxyrhamphus frater* was based upon two specimens obtained by Arcé at Calovevora in Veragua in 1867. Since their receipt a subsequent collection from the same locality has arrived containing a more ample supply of specimens. These fully confirm the differences which we have already pointed out as subsisting between the two species, viz., the much shorter tail, the generally brighter plumage, and the rather broader cream-coloured edgings to the outer webs of the secondaries and wing-coverts in the Veraguan form.

Mr. Lawrence's recently published Catalogue of the Birds of Costa Rica shews us that this *Oxyrhamphus* occurs also in that country, specimens having been forwarded to the Smithsonian Institution from the vicinity of San José by Dr. v. Frantzius. But, as has been already remarked, Mr. Lawrence has not distinguished this bird from its Brazilian ally.

The genus *Oxyrhamphus* is a very isolated type, and there is great difficulty in assigning it a proper systematic position in the natural series. The presence of ten fully developed primaries and the structure of the tarsi seem to prove that Cabanis was right in arranging it amongst the *Tracheophonæ*. But we can hardly follow him so far as to regard this peculiar

form as a genus of *Anabatidæ*, or, as we prefer to call them, *Dendrocolaptidæ*. It would seem more natural to consider it as constituting a sub-family, if not a family, *per se*. An additional, and apparently hitherto unnoticed peculiarity in the genus *Oxyrhamphus* is the serration of the outer web of the external primary. This is very strongly marked in some specimens of both the known species, but we believe it to be restricted to the adult males, as younger birds and females, as determined by Arcé, do not possess it.

Our figures of this species are taken from the original specimens, which are now in Salvin and Godman's Collection. The upper figure without the red crown represents a young bird; the lower figure an adult female; from which, however, the male is undistinguishable in colouring.

DECEMBER, 1868.



PLATE LXVII.

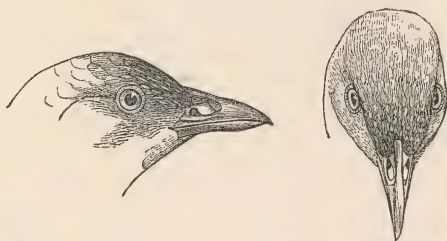
THYRORHINA SCHOMBURGI.

(SCHOMBURGI'S CRAKE).

<i>Crex schomburgki</i>	.	.	.	Cab. in Schomb. Guian. ii. p. 245, et iii. p. 760.
"	"	.	.	Scl. & Salv. P.Z.S. 1868, p. 169.
<i>Micropygia schomburgi</i>	.	.	.	Bp. C. R. xliii. p. 599.
<i>Ortygometra schomburgki</i>	.	.	.	Bp. Bull. Soc. Linn. de Normandie, p. 40; et Cat. Ois. Cayenne, p. 16.
<i>Thyrorhina schomburgki</i>	.	.	.	Scl. et Salv. P.Z.S. 1868, p. 458.

Supra olivacea albo guttata, his maculis albis nigro circumdati: subtus rubiginosa, gulâ albicante, abdomine medio albo: rostro corneo, mandibulæ apice flavâ: pedibus aurantiacis: long. tota 5·0, alæ 3·3, caudæ 1·4, rostri a rictu 0·6, tarsi 0·85, dig. med. cum ungue 0·9.

Hab. in Guianâ Brit. (*Schomb.*): Cayennâ (*Deplanches*): Venezuelâ, Caripé (*Goering*): Caraccas (*Levrard*, in Mus. Paris.)



Head of *Thyrorhina schomburgki*.*

The peculiar form of the nasal openings, which are partly covered over in front by a horny membrane and are completely divided from each other by a median septum, has induced us to refer this species to a new genus, these characters not occurring in any other American form of *Rallinæ*. In other respects this little Crake agrees generally with the smaller American species of *Porzana*. The form of the wing corresponds nearly with that of *P. noveboracensis*, the second and next three following primaries being nearly equal and longest, and the external secondaries elongated, so as to be longer than the outer primary. The toes are slender, the middle toe with its nail hardly exceeding the tarsus in length. The tibiæ are feathered nearly down to the joint. The tail is rather longer than is usual among the smaller *Rallidæ*, and not so much concealed by the coverts.

* *ῥῥος*, porta, et *ῥῖς*, nasus.

Dr. Schlegel's *Porzana schomburgki* (Mus. de P. B. *Ralli*, p. 37) can hardly be of this species if his description is correct.* It would appear to be more like Sclater's *P. erythrope*, to which, therefore, we have provisionally referred it.

The original discoverer of this Rail was Dr. Richard Schomburgk, who obtained a pair of the species during his excursion to the Roraima mountains of British Guiana in November, 1842, at an elevation of about 3300 feet above the sea-level, and gave a short description of it in the second volume of his well-known travels. Dr. Schomburgk tells us that it is very easy to catch it alive, as after a short flight it endeavours to conceal itself in the grass. He thus captured a male and female and kept them for some time in a cage. From Guiana and Cayenne, it appears to extend into Venezuela, whence specimens have been forwarded by M. Levraud to the Paris Museum. The single specimen in the collection of Messrs. Salvin and Godman from which our figure is taken is from the latter country, and was obtained by Mr. Anton Goering near Caripé.

* Dessus d'un brun olivâtre. Dessous gris d'ardoise; bas ventre et sous-caudales noires avec des bandelettes blanches.

DECEMBER, 1868.

Ex Orn

Plate LXVIII.



J. Smit del.

M. & N. Harhart imp.

CHLOROPHONIA CALOPHRYS.

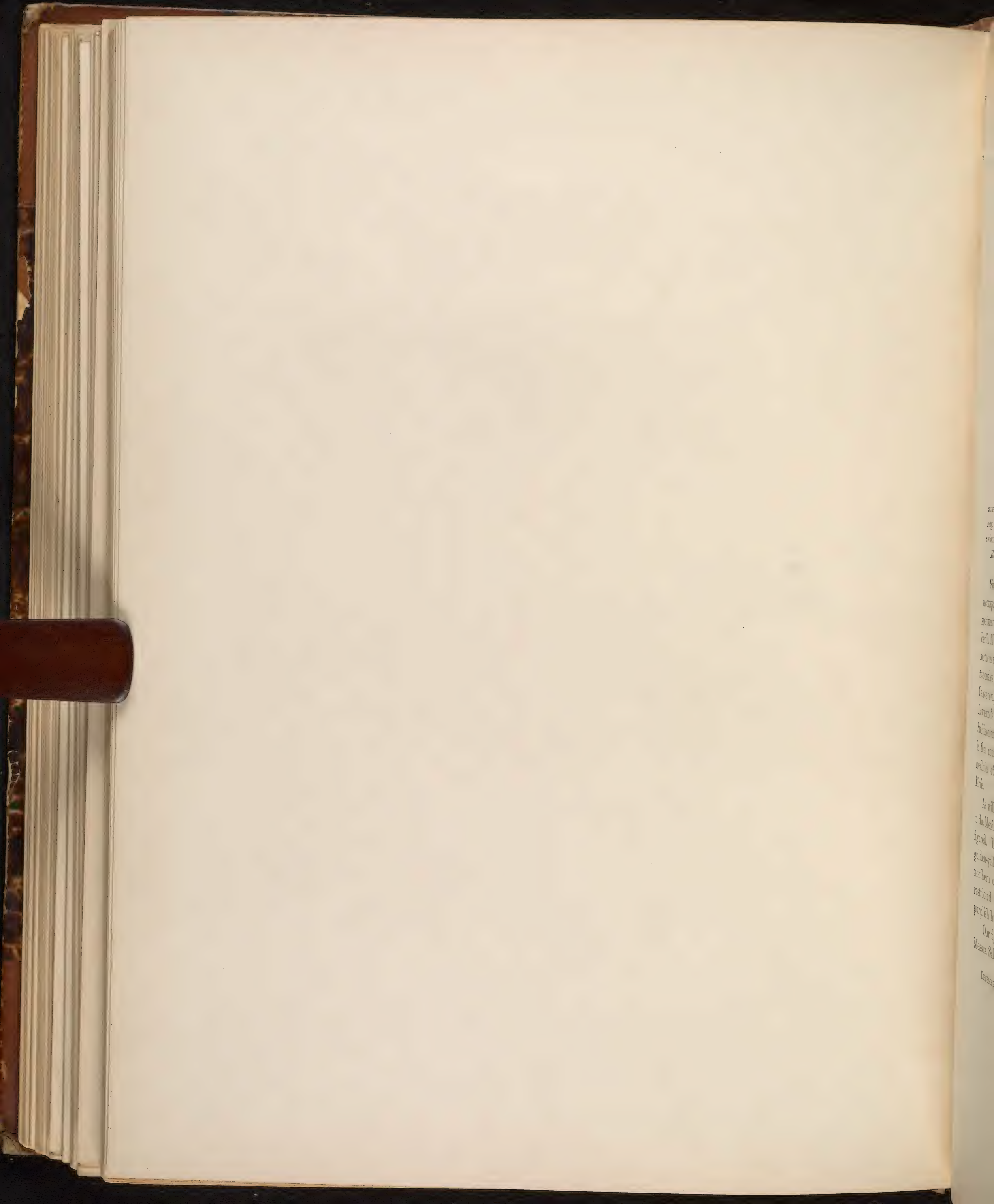


PLATE LXVIII.

CHLOROPHONIA CALOPHRYS.

(YELLOW-BROWED CHLOROPHONE).

<i>Triglyphidia callophrys</i>	.	.	.	Cab. J. f. Orn. 1860, p. 331.
<i>Acrocompsa callophrys</i>	.	.	.	Cab. J. f. Orn. 1861, p. 88.
<i>Chlorophonia callophrys</i>	.	.	.	Scl. & Salv. Ex. Orn. p. 84.
"	"	.	.	Lawr. Ann. N. Y. Lyc. ix. p. 98.

Clarè viridis, occipite et lineâ cervicali posticâ saturatè cœruleis, fronte et superciliis latis ad nucham extensis aureo-flavis: torque pectorali obscurè castaneâ; abdomine medio flavissimo: rostro nigro, pedibus obscurè corylinis, long. totâ 5.0, alæ 3.0, caudæ 1.8. *Fem.* mari similis, sed fronte et superciliis viridibus, torque pectorali nullo et abdomine minus flavicante.

Hab. In Costâ Ricâ (*Hoffmann*): Veraguâ (*Arcé*).

Since we published our summary of the known species of *Chlorophonia* in the letterpress accompanying the forty-second Plate of this work, we have been so fortunate as to obtain specimens of the present species, before only known to us from the original example in the Berlin Museum. Enrique Arcé, during a recent excursion to the mountainous district upon the northern slope of the Cordillera of Veragua, obtained six specimens of this lovely Tanager—two males and four females. These are all marked as having been shot near the village of Calovevora, where many other interesting species were also met with. By Mr. G. N. Lawrence's recently published catalogue of the Costa-Rican birds in the collection of the Smithsonian Institution, we find that additional specimens of this bird have also been procured in that country, where the original example described by Dr. Cabanis was obtained. The localities of its occurrence noted by Mr. Lawrence are Rancho Redondo, San José, and Birris.

As will be apparent from our illustration, the Yellow-browed Chlorophone is closely allied to the Mexican and Guatemalan *Chlorophonia occipitalis*, both sexes of which we have already figured. But it is nevertheless a very well marked species—conspicuously distinct by its golden-yellow front and broad superciliaries, of which colour there are no traces in its northern congener. In the present bird, likewise, the blue on the crown instead of being restricted to an occipital spot, is extended over the nape and is of a deeper and more purplish hue.

Our figures of this Tanager are taken from a pair of Arcé's specimens, which are now in Messrs. Salvin and Godman's collection.

DECEMBER, 1868.

Ex. Orn.

Plate LXIX.



J Smit lith.

$\frac{2}{3}$

ACCIPITER BICOLOR.

M & N Hanhart imp

PLATE LXIX.

ACCIPITER BICOLOR.

(VIEILLOT'S SPARROW-HAWK).

<i>Sparvius bicolor</i> . . .	Vieill. N. D. x. p. 325 (1816), et Enc. Méth. p. 1265.
" <i>Nisus variatus</i> , Cuv." . .	Less. Tr. d'Orn. p. 61 (1831).
<i>Accipiter sexfasciatus</i> . .	Sw. An. in Menag. p. 282 (1838).
<i>Nisus sexfasciatus</i> . . .	Cab. in Schomb. Guian. iii. p. 736.
" <i>Micrastur dynastes</i> , Verreaux." .	Bp. Notes Orn. p. 4.
<i>Accipiter pileatus</i> . . .	Scl. P.Z.S. 1859, p. 389.
" " . . .	Salv. Ibis, 1861, p. 355.
" " . . .	Lawr. Ann. Lyc. N. S. vii. p. 289, et ix. p. 134.
<i>Accipiter erythrocnemius</i> . .	Scl. P.Z.S. 1860, p. 96, (err.)

Suprà saturatè cineraceo-nigricans, pileo nigro: subtus schistaceus, lineolis angustis nigris in plumarum rachidibus ornatus, subalaribus et ventre imo cum crisso albis; tibiis saturatè ferrugineis: remigibus subtus nigricantibus, albo frequentèr transfasciatis; caudà subtus nigra albo trivittatà: long. tota 15.0, alæ 8.5, caudæ 6.5, tarsi 2.4, dig. med. c. u. 1.9. *Fem.* mari similis, sed major, long. tota 17.0, alæ 9.7, caudæ 7.5, tarsi 2.6, dig. med. c. u. 2.2. *Junior.* Suprà omninò fumido-brunneus, torque angusto collari albicante: subtus unicolor lactescenti-albus, fulvo perfusus, tibiis pallidè rufescentibus.

Hab. in Americà continentali tropicà a Mexico meridionali usque ad Guianam: Mexico merid. (*Boucard*); Guatemala (*Salvin*); Costa Rica (*Curmiol*); Veragua (*Arcé*); Panama (*McCleannan*); Nov. Granada int. Bogota (*Mus. S—G.*); rep. Æquator. (*Fraser*); Venezuela (*Levaud*); Guiana (*Schomburgk*); Cayenna (*Poiteau et Leblond*).

After examination of a large number of specimens of *Accipiter pileatus* (usually so called) from various parts of Tropical America, we have come to the conclusion that two species remain confounded under this name besides the *Accipiter chilensis*, of which we have already given a figure. The most noticeable points of distinction between these two birds are as follows. In the true *A. pileatus* of Prince Max., the adult of which is well figured in Temminck's Planches Coloriées (205), the under-wing-coverts are deep red of nearly the same hue as the thighs. Again, the young bird of the Brazilian species, which appears to be represented by the same author (Pl. Col. 295) as the young of his *Falco poliogaster*, is always conspicuously spotted beneath, more especially on the flanks. But in the northern representative, which we now illustrate, it will be apparent that the under-wing-coverts of the adult are white, and that, if our views are correct, in the immature stage the under-surface is of a uniform pale fulvous without spots of any kind.

The name *pileatus* being retained for the Brazilian bird it remains to discover what is the oldest specific term strictly applicable to the northern species. This, as will be seen from our

list of synonyms, appears to be *bicolor* of Vieillot. In the Museum of Paris, where Vieillot states that the type of his *Sparvius bicolor* is to be found, is an immature female specimen of the present bird, in the same dress as is figured on our plate, marked as the original of that author's description, with which it likewise well agrees. In his laborious studies of the types in this Museum Dr. Pucheran has already shewn* that this specimen is the same as the larger of the two individuals (belonging to different species), upon which Cuvier bestowed the name *Nisus variatus*, and it appears to be that also which Lesson, in 1831, described under Cuvier's name. We may add that the smaller type of Cuvier's *N. variatus* seems to us to be a young male of the true *Accipiter pileatus* of Brazil.

Two other names appear to have been subsequently based upon the young dress of the present species—*Accipiter sexfaciatus* by Swainson and *Micrastur dynastes* by Verreaux. Typical specimens of both these supposed species are in the British Museum, where we have had the advantage of consulting them. In its adult stage this Sparrowhawk seems never yet to have been distinguished from the true *A. pileatus*.

The range of this northern species appears to be much more extensive than that of its southern congener, as will be seen by the list of localities above given. In Guatemala Salvin found it sparingly distributed throughout the forests of the lowland districts, and obtained specimens of it in various states of plumage. It was generally observed in the vicinity of villages situated in the outskirts of the forest, and was well known to the inhabitants as an audacious depredator of their hen roosts. It keeps, however, exclusively to the lower forests, while in the highland portions of Guatemala its northern congener *Accipiter cooperi* appears to take its place.

Our figures of this species represent Guatemalan skins in the collection of Messrs. Salvin and Godman at two-thirds of their natural dimensions. The adult bird is a male, shot at Savana Grande on the southern slope of the Volcan de Fuego, in 1862. The young one is a female from Choctum in Vera Paz obtained in January, 1861.

* Rev. Zool. 1850, p. 6.

DECEMBER, 1868.



J. Smit lith.

M & N Hanhart sculp.

TURDUS GIGAS.

PLATE LXX.

TURDUS GIGAS.

(GIGANTIC THRUSH).

- Turdus gigas* Fraser, P.Z.S. 1840, p. 59.
 " " Bp. Consp. p. 275.
 " " Scl. P.Z.S. 1855, p. 144: 1858, pp. 451, 550, et 1859, pp. 136, 332: Cat. A. B. p. 5.

Fusco-nigricans; subtus paulò dilutior, subalaribus concoloribus; rostro et pedibus flavis; primario externo elongatiore quam solet: long. tota 13·0, alæ 6·2, rem. prim. ext. 3·0, caudæ 6·0, tarsi 1·7.

Hab. in Novâ Granadâ et rep. Æquator., in regione elevatâ.

This Thrush, which is at once distinguishable from every other known species of the genus by its large size, is an inhabitant of the highlands of New Granada and Ecuador. It was first described by Mr. Fraser in 1840 from skins in the collection of the late Lord Derby received from Bogota and probably collected in the immediate vicinity of that capital, which is situated at an elevation of nearly 9000 feet above the sea-level. To the same Naturalist we are also indebted for the little that is known concerning the habits and mode of life of this species. During his expedition to Ecuador in 1857 and the following years Mr. Fraser met with it in several localities, namely, Cuenca, Titiacun, Matos, and Pallatanga. At Titiacun and Matos on the plateau of Riobamba Mr. Fraser found this Thrush common, and noted it as "rather a good songster." Along with skins of it obtained in this district Mr. Fraser forwarded a nest with two eggs, which are now in the British Museum. The nest is made of stalks and grass, lined with fine hay. The eggs appear rather small for the bird measuring 1·3 by 1·0 inch. They are of the usual character of *Turdus* as regards colour, being of a bluish green minutely freckled with pale red.

Turdus gigas belongs to a small group of Thrushes which are found in different parts of the chain of the Andes. The most northern of these is *Turdus nigrescens** of the highlands of Costa Rica. Others are *T. chiguanco* of Western Peru and Ecuador, and *Turdus fuscater* of the Andes of Bolivia, which also occurs in the vicinity of Mendoza in the Argentine Republic. In all these species, we believe, the sexes are coloured exactly alike, in which respect they differ from the true Blackbirds (*Merula*), which are also found in South America. In his synopsis of the genus *Turdus*, published in 1859, Sclater proposed as a subgeneric title for this group the term *Semimerula*, which Professor Baird subsequently advanced to the rank of a genus, but, as it appears to us, on insufficient grounds.

Our figure of this Thrush is taken from a "Bogota" skin in Sclater's collection. It is represented three quarters of the size of life.

* Cab. J. f. Orn. 1860, p. 325.



J. Smit lith.

M. & W. Hanhart imp.

TURDUS ALBICOLLIS.

PLATE LXXI.

TURDUS ALBICOLLIS.

(WHITE-NECKED THRUSH).

<i>Turdus albicollis</i>	.	.	.	Vieill. N. D. xx. p. 227, et Enc. Méth. p. 640.
"	"	.	.	Cab. Mus. Hein. I. p. 5.
"	"	.	.	Burm. Syst. Ueb. iii. p. 125.
"	"	.	.	Scl. P.Z.S. 1859, p. 329, et Cat. Am. B. p. 4.
"	"	.	.	Pelz. Orn. Bras. p. 93.

Cinnamomeo-brunneus, subtus pallidé cinereus; gulâ albâ nigro striatâ; collo antico, ventre medio et crisso albis: subalaribus et lateribus ventris saturatè cinnamomeo-rufis: rostro superiore nigro, inferiore flavo: pedibus clarè fuscis: long. tota 9·4, alæ 4·8, caudæ 4·0.

Hab. In Brasiliâ orientali merid.: Minas Geraes (*Burmeister*): Rio Janeiro et S. Paolo (*Natterer*).

There can be little doubt after an attentive perusal of Vieillot's description, that the Thrush we now figure is the true *Turdus albicollis* of that author, as described from specimens collected by the younger Delalande in Brazil, but not the *Turdus albicollis* of Spix. Cabanis and Burmeister have both taken this view of the case, and we see no reason to alter their decision, though the accurate arrangement of the synonyms of the closely allied species of Brazilian Thrushes upon which we are now engaged is by no means an easy task. The White-necked Thrush may be at once distinguished from all its allies by the deep cinnamomeous red of the flanks and sides of the belly, of which colour there are no traces in the other three species. The whole of the under-wing-coverts are likewise cinnamon red, not quite so dark as the flanks, but the inner webs of the remiges below are without this colouring. This renders it easily distinguishable from the true *T. albiventris*, in which the cinnamomeous colouring of the under-wing-coverts is continued over the under surface of the quills.

As far as we know this Thrush is confined to the southern provinces of Brazil. Burmeister tells us that it occurs in the brushwood of the interior, and is much more arboreal in its habits than *T. leucomelas*. His son procured one specimen near Lagoa Santa. From Herr von Pelzeln's recently published catalogue of Natterer's collection we learn that that indefatigable traveller obtained seven examples of this Thrush in the Provinces of Rio Janeiro and Sao Paolo—the exact localities given being Rio Janeiro, Registro do Sai, and Ypanema.

Our figure of this species is taken from a skin in Selater's collection which is believed to have been obtained in the vicinity of Rio. We have seen others in collections from the same district, but not in those from Bahia, where *T. crotapezus* seems to take its place.

DECEMBER, 1868.



M & N Harhart imp

TURDUS LEUCOMELAS

J. Smit lith.

PLATE LXXII.

TURDUS LEUCOMELAS.

(AZARA'S THRUSH).

<i>Zorzal obscuro y blanco</i>	.	.	.	Azara, Apunt. I., p. 341, no. lxxx.
<i>Turdus leucomelas</i>	.	.	.	Vieill. N. D. xx. p. 238, et Enc. Méth. p. 644.
"	"	.	.	Hartl. Ind. Az. p. 6.
"	"	.	.	Scl. & Salv. P.Z.S. 1868, p. 138.
"	"	.	.	Pelz. Orn. Bras. p. 93.
<i>Turdus amaurochalinus</i>	.	.	.	Cab. Mus. Hein. I. p. 5.
"	"	.	.	Scl. P.Z.S. 1859, p. 329.
"	"	.	.	Scl. & Salv. P.Z.S. 1867, pp. 568, 749.
<i>Turdus albiventer</i> , ♀	.	.	.	Spix, Av. Bras. I. p. 70, t. 69, fig. 2.
<i>Turdus albiventris</i>	.	.	.	Scl. P.Z.S. 1858, p. 451, et 1859, p. 328, et Cat. Am. B. p. 3 (err.).
<i>Turdus crotopezus</i>	.	.	.	Burm. Syst. Ueb. iii. p. 123, et La Plata-Reise, ii. p. 474.
<i>Turdus ignobilis</i>	.	.	.	Scl. P.Z.S. 1857, p. 273; 1859, p. 328, et Cat. Am. B. p. 3.
<i>Turdus olivaceus</i>	.	.	.	Lafr. et d'Orb. Syn. Av. in Mag. de Zool. 1837, p. 17.
<i>Turdus rufiventris</i> , ♀	.	.	.	d'Orb. Voy. Ois. p. 203.

Supra cinerascens-olivaceus, feré unicolor: loris nigris: subtus pallide cinereus, gulâ albâ fusco striatâ: collo angusto, ventre imo et crisso albis: subalaribus dilutè fulvis: long. tota 8·5, alæ 4·5, caudæ 3·5.

Hab. In Paraguayâ (*Azara*): Rep. Argentinâ (*Hudson*): Brasiliâ merid. orient. prov. S. Pauli (*Natterer*): Minas Geraes (*Burmeister*): Boliviâ (*d'Orbigny*): Peruviâ orient. Ucayali (*Bartlett*): Rep. Æquator. occ. (*Fraser*): Nov. Granadâ int. (*Mus. P. L. S.*): Cayenna (*Mus. P. L. S.*)

This Thrush has been united by different authors with *T. albiventris*, *T. crotopezus*, and even with the very distinct *T. rufiventris*, of which d'Orbigny gravely tells us that it is the female. The confusion thus caused has led to its having received three additional names besides the one originally bestowed upon it by Vieillot. We hope that the figure of it herewith given, under what we believe to be its oldest designation, will render it easily recognizable by future Ornithologists.

Azara's description of his *Zorzal obscuro y blanco* is, we must admit, as Dr. Cabanis has already complained, a little obscure, but the fact of this being the only member of the section found in Paraguay and the Argentine Republic leads us to believe that it is in all probability Azara's species. It is certainly *Turdus amaurochalinus* of Cabanis, as a specimen of it thus marked in that author's own handwriting is in Selater's collection. Spix appears to have figured this bird as the female of his *T. albiventris*, and Selater employed the same term for it in his "Synopsis of American Thrushes," not being then acquainted with the bird legitimately entitled to bear that name, of which we shall give a drawing in our next part. In both his

works on South American Ornithology Burmeister seems to have indicated this species under the name *T. crotopezus*, having been no doubt misled by Lichtenstein's reference to Azara in his original description of that species. But, as we shall presently shew, the true *T. crotopezus*, so well described by Prince Max., is a different species, distinguishable from the present bird by the rich reddish brown of the plumage above, the more densely striated throat, and other differences which we shall hereafter point out.

In 1857, Sclater described a Thrush from Bogota, under the name *Turdus ignobilis*, from specimens in his own collection and in that of the Academy of Natural Sciences of Philadelphia. After carefully comparing the New Granadian bird with a series of skins from other localities, we are now of opinion that there are scarcely sufficient grounds for separating it from the present species. The only points of difference are the lighter coloured lores, and somewhat darker breast in some specimens. But in more recently obtained examples, these distinctions do not seem to be constant.

How d'Orbigny came to make the mistake of regarding this Thrush as the female of *T. rufiventris*, we cannot explain; suffice it to say that, as Burmeister observes, they do not even inhabit the same sort of country; *T. rufiventris* being a forest-loving species, whereas the present bird seems to be peculiar to the Campos, and more open districts.

As will be seen by the list of localities above given, as well as from what has been already stated, the range of Azara's Thrush in South America is very extensive, stretching from New Granada and Ecuador in the north to the Pampas of Buenos Ayres in the south, but from what has been recorded of its habits, it would appear to shun the densely wooded districts and to occur only in the savannas. In the vicinity of Lagoa Santa, where Burmeister tells us that it is by no means scarce, its terrestrial habits are stated to cause it to be subject to the attacks of the "jigger" (*Pulex penetrans*)—a well-known pest of the American tropics.

Our figure of this species is taken from a skin in Sclater's collection, which from the mode of its preparation appears to be from Cayenne.

DECEMBER, 1868.



J. Smith del.

TURDUS CROTOPEZUS.

M. & W. Hanhart imp.

PLATE LXXIII.

TURDUS CROTOPEZUS.

(LICHTENSTEIN'S THRUSH).

<i>Turdus crotopezus</i>	.	.	.	Licht. Doubl. p. 38 (1823).
"	"	.	.	Max. Beitr. iii. p. 646 (1831).
"	"	.	.	Cab. Mus. Hein. I. p. 4.
"	"	.	.	Sclater, P.Z.S. 1859, p. 327, et Cat. Am. B. p. 3.
<i>Turdus albicollis</i>	.	.	.	Spix, Av. Bras. i. p. 71, t. 70.

Olivaceo-brunneus, pileo obscuriore, caudâ cineraceo-nigricante: subtus pallidè cinereus, gulâ densè nigro striata; plagâ subgutturali et ventre medio cum crisso purè albis, lateribus fulvescentibus; subalaribus pallidè cinnamomeis: rostri maxillâ corneâ, mandibulâ flavâ: pedibus pallidè carneis: long. totâ 8.5, alæ 4.4, caudæ 3.3, tarsi 1.2. *Fem.* mari similis sed coloribus paulò obscurioribus.

Hab. in Brasil merid. orient. prov. Bahiensi.

This Thrush has been frequently confounded with *Turdus leucomelas* figured in our last plate, from which, however, it is readily distinguishable by the brownish olive back, and the pure white neck-spot and belly. But it is a much more difficult task to differentiate it from some forms of its variable northern representative *Turdus tristis*, under which denomination we propose to unite the birds hitherto called *Turdus assimilis** and *T. leucauchen*, as well as the *Merula tristis*, of Swainson. As a general rule, as Dr. Cabanis remarks, the Brazilian species may be distinguished by the deep olive-brown tinge of the upper surface, but in two skins of *Turdus tristis*, obtained in the highlands of Guatemala near Dueñas, nearly the same colour is exhibited on the back, though these birds are easily distinguishable from their southern ally by the darker colouring of the chest and flanks.

Turdus crotopezus was first shortly described by Lichtenstein, in his "list of duplicates of the Berlin Museum," published in 1823. Through Dr. Peters' kindness in lending us the type-specimen, we have been able to ascertain positively that the Bahian bird characterized by that author as the male of his *T. crotopezus* (No. 436) is of the same species as the specimen now figured, although Azara's "*Grive blanche et noirâtre*," (i.e. *T. leucomelas*) is referred to as being identical with it. Lichtenstein's "*T. crotopezus fem.*" (No. 437,) may probably be the true *T. leucomelas*.

* It seems certain that this is the only Mexican species to which Swainson's short description (Phil. Mag. 1827, p. 369,) is applicable. Dr. Cabanis' *Turdus tristis*, Mus. Hein. I. p. 4, the type-specimen of which Dr. Peters has lately sent to us for comparison, is, in our opinion, merely a somewhat lighter-coloured example of the bird described by Dr. Cabanis in the same work as *Turdus assimilis*. This, as we learn from a MS. note on the label, is now also Dr. Cabanis' view.

For the first really satisfactory description of *Turdus crotopezus* we must turn to the pages of Prince Max's well-known "Beiträge." Prince Max, however, gives us very little information concerning the life of this bird, merely stating that it is found in the dense forests of the coast-region, and has the same habits as other species of the genus. He never heard it sing.

Our figure of this Thrush is taken from a specimen in Sclater's collection, believed to have been collected in the vicinity of Bahia, which is, in fact, the only locality that can with certainty be given for its occurrence.

JANUARY, 1869.



TURDUS ALBIVENTRIS.

J Smittlich

W. & N. Hartnup

PLATE LXXIV.

TURDUS ALBIVENTRIS.

(SPIX'S THRUSH).

<i>Turdus albiventer</i>	.	.	.	Spix, Av. Bras. i. p. 70, t. 69, f. 1.
"	"	.	.	Cab. in Schomb. Guian. iii. p. 666 et Mus. Hein. p. 4.
"	"	.	.	Scl. & Salv. P.Z.S. 1867, p. 568.
"	"	.	.	Burm. Syst. Ueb. iii. p. 124.
<i>Turdus ephippialis</i>	.	.	.	Scl. P.Z.S. 1862, p. 109 et Cat. Am. B. App. p. 358.
<i>Turdus humilis</i>	.	.	.	Licht. in Mus. Berol. : Nomencl. p. 26.

Suprà olivaceo-brunneus, capite colloque cineracescentibus: subtùs pallide cineraceus; gulâ albâ fusco striatâ; ventre medio crissoque purè albis: subalaribus et remigum marginibus internis laté cinnamomeis: rostro et pedibus fuscis: long. totâ 9·0, alâ 5·6, caudâ 3·75.

Hab. in Brasiliâ orientali, Bahia (*Wucherer*): Mexiana (*Wallace*): Para (*Spix*): Guiana Brit. (*Schomburgk*): Venezuela; Cumana (*Beauperthuy* in *Mus. Par.*): Nov. Granadâ int. (*Mus. P.L.S.*).

There can be no question, we think, that, as Dr. Cabanis has pointed out, the bird figured by Spix as the male of his *Turdus albiventer* is this Thrush, which may be immediately distinguished from the species figured in the three preceding plates by the deep cinnamomeous under-wing coverts, and by this colour being extended over the inner edges of the remiges. In this character it resembles *Turdus rufiventris*, *T. fumigatus* and *T. grayi*; from which, however, it is easily distinguishable by other decided differences. From *T. albicollis*, with which it has been likewise confounded, this Thrush is easily recognisable by the complete absence of the white neck-spot, more nearly resembling *T. leucomelas* in this respect.

In contrast to what we have observed as regards the last species the present bird appears to have an extended range in South America, from the neighbourhood of Bahia in Brazil to the vicinity of Bogotá in New Granada. It occurs, not unfrequently, in collections formed in the province of Bahia, whence Dr. Wucherer has recently forwarded us specimens. Mr. Wallace collected examples in the island of Mexiana near Para, thus confirming one of the localities assigned to it by Spix. The other locality given to it by the latter Naturalist "Minas Geraes," is probably intended for *Turdus leucomelas*, which, as has been already noted, is figured as by Spix the female of the present species.

Proceeding northwards we find this Thrush occurring in Schomburgk's list of the birds of British Guiana, and recorded by Cabanis as existing in the Berlin Museum from Cayenne.

The same institution likewise possesses examples from Venezuela, while specimens in the Paris Museum were collected near Cumanà in the same country. Our authority for its extension into New Granada is a specimen in Sclater's collection, of the usual unmistakeable Bogota "make," upon which his *Turdus ephippialis* was established. This bird, however, as we have already stated, is certainly identical with *T. albiventris*; of which, at the time when the new name was proposed, the synonymy had been wrongly interpreted.

Our figure of this Thrush is taken from a Brazilian specimen in Sclater's collection.

JANUARY, 1869.

En. Orn.

Plate LXXV.



J. Sm. del.

M. & J. Harbert imp.

TURDUS PHÆOPYGUS

PLATE LXXV.

TURDUS PHÆOPYGUS.

(CABANIS' THRUSH).

<i>Turdus phæopygus</i>	.	.	.	Cab. in Schomb. Guian. iii. p. 666 et Mus. Hein. i. p. 4.
"	"	.	.	Sclater, P.Z.S. 1858, p. 64, 1859, p. 327 et Cat. Am. B. p. 3.
"	"	.	.	Scl. & Salv. P.Z.S. 1867, p. 568, et p. 754, t. xxix.
"	"	.	.	Leotaud, Ois. Trin. p. 197.
<i>Turdus jamaicensis</i>	.	.	.	Jardine, Ann. & Mag. N. H. xx. p. 329 (1847).

Supra saturatè olivaceo-brunneus, uropygio cinereo : subtus pallidè cinereus, gula alba nigro striatâ; collo antico angustè et ventre imo cum crisso albis : subalaribus cinereis : long. totâ 7·5, alæ 3·9, caudæ 3·0, tarsi 1·1.

Hab. in Guianâ Brit. (*Schomb.*) : Surinam (*Mus. Berol.*) : Cayennâ (*Mus. P. L. S.*) : Para et Rio Negro (*Wallace*) : Peruv. orient. Chayavetas (*Bartlett*) : Æquatoriâ orient. fl. Napo. : Nov. Granada int. Bogota (*Mus. S.-G.*) : ins. Trinitatis (*Leotaud*) : ins. Tobago (*Kirk*).

This Thrush, although a well-marked species and widely distributed in South America, seems to have escaped the notice of Naturalists until the year 1848, when it was described by Dr. Cabanis in the third volume of Schomburgk's "Travels in British Guiana." Dr. Schomburgk states that in habits it does not differ from other species of the genus which he met with in that country, being found in the forests, and usually observed on the ground or in low bushes. The species is also met with in Surinam and Cayenne, specimens from those countries being in the Berlin Museum and in Sclater's collection; and extends as far southwards as Para, where Mr. Wallace obtained examples. The same Naturalist also collected specimens of it at Cobati on the Rio Negro. Proceeding westwards into upper Amazonia, we find it occurring at Chayavetas, in Eastern Peru, where Mr. E. Bartlett met with it in August 1866, and on the Rio Napo, whence Verreaux's collectors have transmitted skins. It also occurs occasionally in Bogota collections. We have, as yet, no record of its being met with in Venezuela, though it is doubtless found there, as in Trinidad, as we are informed by M. Leotaud, it is a constant resident, and the birds of Trinidad are all likewise inhabitants of the adjacent mainland.

In Trinidad, M. Leotaud tells us, this species is usually met with in the forests of the interior in small flocks, except during the breeding season, when they separate into pairs. It is lively and active in its motions, and has a sweet, loud and rather varied song, which is usually heard during the middle of the day, as in the morning and evening it is occupied in searching for the berries which constitute its food. M. Leotaud adds that its flesh is excellent for the table.

In the adjoining island of Tobago, Mr. Kirk has likewise noted that it feeds upon the small berries and seeds, and is particularly shy and restless.

In his articles on Mr. Kirk's collections Sir William Jardine has named this Thrush *Turdus jamaicensis*, but Sclater, who has examined the specimens, is satisfied that they really belong to the present bird.

Turdus phæopygus belongs strictly to the same group of species as those we have already figured, but is considerably smaller in dimensions than any of its allies. From *T. crotopezus*, which, as Dr. Cabanis remarks, is perhaps its nearest ally, it may be readily distinguished by its grey rump, and the pure ashy colour of the under-wing coverts; which, as is also the case in *T. jamaicensis*, have no trace of a cinnamomeous tinge. The last mentioned species, with which Sir W. Jardine confounded it, is at once recognizable by its larger size and coffee brown head, contrasting with its grey back.

Our figures of this Thrush are taken from specimens in Sclater's collection, that of the adult from a Cayenne skin, that of the younger bird from a skin obtained on the Maroni River in Surinam by Mr. C. Bartlett. The latter has already figured in the Proceedings of the Zoological Society for 1867, t. 29.

JANUARY, 1869.

Pl. Orn.

Plate LXXVI.



J. Smit del.

M. & N. Hanhart imp.

TURDUS GYMNOPTHTHALMUS.

PLATE LXXVI.

TURDUS GYMNOPHTHALMUS.

(NAKED-EYED THRUSH).

<i>Turdus gymnophthalmus</i>	.	.	.	Cab. in Schomb. Guian. iii. p. 665 (1848).
" "	.	.	.	Slater, P.Z.S. 1859, p. 329, et Cat. Am. B. p. 4.
<i>Turdus nudigenis</i>	.	.	.	Lafr. Rev. Zool. 1848, p. 4.
" "	.	.	.	Leotaud, Ois. Trin. p. 201.
<i>Turdus gymnopsis</i>	.	.	.	Temm. Mus. Lugd.
" "	.	.	.	Bp. Consp. p. 272 (1850).

Supra-fuscescenti-cinereus olivaceo vix tinctus: orbitis latè nudis: subtus sordidè cinereus; gutture albescente, fusco striato; ventre medio et crisso albis; subalaribus pallidè cinnamomeis: rostro flavo, ad basin fuscescente; pedibus corylinis: long. totà 9.0, alæ 4.5, caudæ 3.8, tarsi 1.2.

Hab. Venezuela in vicin. urbis Caraccas (*Sallé*): ins. Trinitatis (*Leotaud*): Tobago (*Kirk*): Guianâ Brit. (*Schomburgk*): Surinam (*Hering*, in Mus. Acad. Phil.): Nov. Granada int. (Mus. G. N. *Lawrence*).

For our first knowledge of this Thrush we are also indebted to the exertions of Dr. Richard Schomburgk, who obtained it during his travels in British Guiana in 1840-44. In his description of these specimens Dr. Cabanis informs us that the Berlin Museum possesses examples of the same species from Cayenne, La Guayra, and Caraccas. About the same period, specimens from the latter locality reached the well-known French Ornithologist, the late Baron F. de Lafresnaye, who described the species as *Turdus nudigenis*. Though Lafresnaye does not mention this fact, we believe that these skins were collected (along with those of *Turdus atroseiceus* and *T. olivater*, described in the same article) by M. Auguste Sallé, on the mountain ridge between La Guayra and Caraccas. Two years subsequently Prince Bonaparte gave the species the third name of *Turdus gymnopsis*—a manuscript term, which had been attached to specimens of it in the Leyden Museum by Temminck. Prince Bonaparte gives its locality as "Brazil," but we do not believe it really occurs so far south in America. The only continental localities for it we can add to those already enumerated, are Surinam and the interior of New Granada. From the former country, specimens have been sent by Mr. Hering to the Museum of the Academy of Natural Sciences of Philadelphia; and from the latter Mr. George N. Lawrence, of New York, has received skins of undoubted "Bogota" make. Besides this it certainly occurs in the islands of Trinidad and Tobago. In the latter island, Mr. Kirk obtained it, and sent examples to Sir W. Jardine. In Trinidad, M. Léotaud tells us, it is common everywhere, and permanently resident; being, however, most frequently met with in the vicinity of habitations. It feeds in flocks, principally on berries, and in the evening makes its

presence known by a song, which is more remarkable for variety than for sweetness. For its roosting place it usually selects the small palm trees, which grow in damp situations, where the arrival of each additional member of the flock is greeted with a cackling, which does not cease until darkness sets in. M. Léotaud adds that the gourmands of Trinidad highly appreciate this Thrush, particularly at the season when it feeds on certain aromatic berries.

Turdus gymnophthalmus may be readily distinguished from all its congeners in America, by the broad naked skin round the eye, which, in life, is of a bright yellow. Hence its trivial name in Trinidad is "*Le Grive à paupières jaunes*."

Our figure of this Thrush is taken from a Venezuelan specimen in Sclater's collection.

JANUARY, 1869.

Ex Orn.

Plate LXXVII



J Smit lith.

BUCCO STRIOLATUS.

M & N Hanhart imp.

PLATE LXXVII.

BUCCO STRIOLATUS.

(STRIPED PUFF-BIRD).

<i>Capito striolatus</i>	. . .	Natt. in Mus. Vindob.
<i>Bucco striolatus</i>	. . .	Pelzeln, Sitz. Acad. Wien. xx. pp. 500, 509 (1856) et Orn. Bras. p. 22.
<i>Myiophobus striolatus</i>	. . .	Cab. & Hein. Mus. Hein. iv. p. 140.

Supra fusco-nigricans, plumis omnibus rufescente marginatis et fasciatis: nuchâ latâ, capitis lateribus et torque pectorali saturatè ochraceis nigro punctatis et striolatis; loris et gulâ albicantibus: abdomine sericeo-albo, lateraliter fulvescente tincto, ventre summo et hypochondriis nigro distinctè striolatis: subalaribus et remigum pogoniis interioribus ad basin cinnamomeis; caudâ totâ brunnescenti-nigra, rectricibus omnibus et in pogonio utroque ochraceo-rufo frequenter transfasciatis: rostro nigricante, tomis et mandibulæ basi flavicantibus: pedibus fuscis: long. totâ 7·5, alæ 3·3, caudæ 3·1, rostri a rictu 1·6, tarsi 0·75.

Hab. in prov. "Matogrosso" Brasil. int. (*Natterer*).

This Puff-bird is one of the many ornithological discoveries made by that prince of collectors, the late Johann Natterer, in the interior of Brazil. During his travels in the province of Mato-grosso, in the year 1826, Natterer passed the four months from July to October at the sugar-plantation of the then deceased Captain Gama. This was situated about fifteen leagues from Villabella de Mato-grosso, in the forest district, either on the river Guaporé or not far from its banks. Here, and at a neighbouring station called "Dourado," eight specimens of the present *Bucco* were obtained, but lay unnoticed in the stores of the Vienna Museum, until they were described by Herr v. Pelzeln, in 1856. We are not aware that the species has ever been met with by other collectors.

Bucco striolatus is closely allied to *B. radiatus* of New Granada, *B. striatipectus* of Bolivia, and *B. maculatus* of the coast-region of Brazil, but is readily distinguishable from all these species on comparison. Its bill is comparatively short and widened at the base, as in *B. radiatus*; which, however, may be immediately distinguished by the absence of the ochraceous pectoral band, and by its black nape. Both *B. maculatus* and its Bolivian representative *B. striatipectus* have longer, more attenuated bills, and have the neck below of a pure rufous, without any longitudinal markings.

Natterer's MS. notes, as published by Von Pelzeln, inform us that in this species the bill in the living bird is olive-green, with the end and the basal half of the culmen blackish brown; the iris he describes as dirty yellowish white, the feet as olive-green, the tarsi as rather brownish above, the claws blackish. No details are given of its habits, but like other species of the group, it probably frequents the higher trees of the dense forest.

Our figure of this bird is taken from a Nattererian specimen now in Sclater's collection, obtained in exchange from the Vienna Museum. It is a female, and was shot at Dourado on the 6th July, 1826.

JANUARY, 1869.



J. Smith lith.

M & N Hanhart imp.

PORZANA CASTANEICEPS.

PLATE LXXVIII.

PORZANA CASTANEICEPS.

(CHESTNUT-HEADED CRAKE).

Porzana castaneiceps Sel. & Salv. P.Z.S. 1868, p. 453.

Supra olivacea; capite undique et corpore subtus ad imum pectus castaneis, gulâ dulutiore: ventre imo, tibiis et hypochondriis dorso concoloribus: long. totâ 8.0, alæ 4.4, rostri a rictu 1.1, tarsi 2.0.

Hab. in repub. Æquator. ad ripas fl. Napo.

The eastern provinces of the Republic of Ecuador have as yet had but little attention bestowed upon them by travelling Naturalists, though perhaps scarcely a richer field for discovery remains unexplored in the whole continent of South America. The only localities in this district whence any considerable collections of bird-skins have reached Europe are Puerto del Napo and other villages on the River Napo in the province of Quixos, where this affluent of the mighty Amazon first becomes navigable. In 1854 Mr. Gould received a small series of bird-skins from this district, and in 1858 a more extensive collection from the same country reached the late M. Verreaux of Paris.* Since that period several other smaller collections have been forwarded to Mr. Gould, but most of them have consisted mainly of Trochilidæ, which were especially required for the perfecting of his well-known Monograph of that family. It was in one of these smaller collections, if we are not mistaken, that the single example of the Crake which we now figure occurred. This specimen, which is the only one we have ever seen, is now in the gallery of the British Museum, and has formed the type of our description in the "Proceedings of the Zoological Society," as also of the present figure.

The Chestnut-headed Crake is generally of the same form as the *Porzana concolor*, and nearly resembles that species, but is immediately recognizable by the chestnut colouring extending only over the head and front of the body below, the rest of the plumage being of an olive-green. In *P. concolor* the whole plumage is of a nearly uniform rusty red, being rather brighter below.

The present species forms the fifth member of the uniformly coloured section of *Porzana*, which Prince Bonaparte has called *Rufirallus*. It is perhaps hardly worth while to reprint here the synopsis of this group, which we have recently published in the "Proceedings of the Zoological Society;" but we may take this opportunity to make an addition to the list of synonyms there given. M. Coulon, of Neuchatel, having most kindly lent us the typical example of Tschudi's *Crex facialis*, we find that this presumed species, which we were obliged to leave undetermined in our paper, is nothing more than a very young example of *Porzana cayennensis*.

* See Selater's articles on these two collections, in P.Z.S. 1854, p. 109 & 1858, p. 59.

Ex Orn

Plate LXXIX



J. Smith lith.

ATTAGIS CHIMBORAZENSIS

M & N Hanhart imp

PLATE LXXIX.

ATTAGIS CHIMBORAZENSIS.

(CHIMBORAZIAN ATTAGIS).

Attagis chimborazensis Sci. P.Z.S. 1860, p. 82.
 " " " " " G. R. Gray, List of Gallinæ in Mus. Brit. p. 95 (1867).

Supra niger, plumis omnibus lineis ochraceo-rufis dupliciter marginatis et intus notatis: remigibus primariis alarum nigricanti-cinereis, horum scapis albis: subtus ochraceo-rufus, nigro, sicut in dorso, variegatus; abdomine medio purè cinnamomeo-rufo, lateribus et subcaudalibus nigro variegatis: rectricibus obscure cinereis, harum pogoniis externis lineis pallide cinnamomeis frequentè transfasciatis: tectricibus subalaribus pallide cinnamomescenti-albidis: rostro et pedibus obscure fuscis: long. totà 11·0, alæ 7·3, caudæ 3·0, tarsi 1·0.

Hab. in monte Chimborazo, ad alt. 14,000 pedum.

One of the most elevated localities yet visited by ornithological explorers in any part of the world's surface is Panza, a spot situated on the southern slope of Chimborazo, on the track between Guaranda and Ambato, at an elevation of about 14,000 feet above the sea-level. Mr. Fraser passed several days at this station in January 1859, and obtained specimens of seventeen species of birds in this dreary and inhospitable solitude. Amongst them were three examples of the present *Attagis*, which, in one of his papers on Fraser's collections, Selater has named after the celebrated Volcano upon the slopes of which it was obtained. Mr. Fraser tells us that the bird is found among the bare rocks, and has a note '*chay-lac, chay-lac, chay-lac.*' The stomachs contained vegetable matter and grit. The Chimborazian *Attagis* is about the same size as *A. gayi* and *A. latreilli*, but is immediately distinguishable from these closely-allied species by its darker colouring, the black markings being much more prominent in the present bird.

The genera *Attagis* and *Thinocorus* together constitute the family *Thinocoridae*—one of the most peculiar forms of the Neotropical Ornis. With much of the external appearance of the Ptarmigans of the Northern hemisphere, they combine the essential structure of the Plovers, and must be placed in the natural series in the neighbourhood of *Glareola* and *Hæmatopus*. Like several other genera belonging to the Patagonian province they are found at the sea-level in high southern latitudes, but attain a greater elevation as they advance northwards, until under the equator, as we have seen, they frequent the highest localities capable of maintaining bird-life.

Our figure of this *Attagis* is taken from a specimen in the British Museum, purchased of M. Parzudaki of Paris.

There are four recognized species of *Attagis*, which may be enumerated as follows :

1. *ATTAGIS GAYI*.

Attagis gayi, Geoffr. et Less. Cent. Zool. p. 135, t. 47 : Cassin, Gillis's Exp. ii. p. 192 : Gould, Zool. Voy. Beagle, iii. p. 117 : Gay, Faun. Chil. Aves, p. 384 : Sclater, P.Z.S. 1867, pp. 331, 339.

Hab. Chili ; Cordilleras of Coquimbo and Copiapo (*Darwin*) : prov. of Santiago (*Leybold*).

2. *ATTAGIS LATREILLII*.

Attagis latreillii, Less. Bull. des Sc. Nat. xxv. p. 243 : Ill. de Zool. t. 11 : Gray and Mitch. Gen. of Birds, t. 135 : Gray, Faun. Chil. Aves, p. 385 : *Attagis gayi*, Bridges, P.Z.S. 1847, p. 29.

Hab. Bolivia, Tapaquilcha, between Calamá and Potosi, alt. 14,000 ft. (*Bridges*).

3. *ATTAGIS CHIMBORAZENSIS*, tab. LXXIX.

4. *ATTAGIS MALOUINA*.

"*Caille des Isles Malouines*," Buff. Pl. Enl. 222, (undè) *Tetrao malouina*, Bodd. *Attagis malouina*, Sel. P.Z.S. 1861, p. 46 : Abbott, Ibis, 1861, p. 154. *Tetrao falklandica*, Gm. S. N. i. p. 762 : *Attagis falklandica*, Gould. Zool. Voy. Beagle, iii. p. 117 : Gay, Faun. Chil. Aves, p. 385 : Sel. & Salv. Ibis, 1868, p. 188.

Hab. East Falkland Isl. (*Abbott*) : Tierra del Fuego (*Darwin, Cunningham*).

JANUARY, 1869.



PLATE LXXX.

FORMICIVORA STRIGILATA.

(STREAKED ANT-THRUSH).

<i>Myiothera strigilata</i>	.	.	.	Max. Beitr. iii. p. 1064.
<i>Formicivora strigilata</i>	.	.	.	Ménetriés, Mém. Ac. Imp. St. Pet. ser. vi. Sc. Nat. I. p. 493 (1835): Mon. des Myioth. p. 51.
"	"	.	.	Scl. P.Z.S. 1858, p. 242.

Supra castanea, nigro striata; alis nigris albo limbatis: superciliis et corpore subtus albis; gutture toto cum pectore nigris, hypochondriis fulvo perfusis; caudâ nigrâ albo terminatâ, rectricibus duabus mediis castaneis: subalaribus albis: rostro nigricante, pedibus fuscis: long. totâ 5·5, alæ 2·4, caudæ rectr. med. 2·4, rectr. ext. 1·8, rostri a rictu 0·8, tarsi 1·15. *Fem.* Mari similis, sed subtus omnino sordidé alba, pectoris lateribus nigro striatis.

Hab. in prov. Bahiensi Brasil. orient. (*Max.*).

The late Prince Maximilian of Neuwied—our best original authority upon the birds of the wood-region of Eastern Brazil, described this beautiful Ant-Thrush in 1831, and still remains the only writer who has spoken of it from personal observation. Prince Max. tells us that he met with it singly and in pairs, in the dense thickets of the forests of Bahia. It is generally seen running upon the ground, or hopping among the lower branches about a foot from the earth. Its call consists of three notes, which are audible at some distance, and is common to the two sexes.

Formicivora strigilata is a typical member of the genus, though of rather larger dimensions and stronger form than its immediate allies. It does not very closely resemble any other described species, but appears to come nearest to *F. rufatra* of Sclater's Catalogue, of which *Myiothera rufa* of Prince Max. is the female. In the latter species, as in the present bird, the black throat and breast are characteristic of the male sex, and are replaced by striations in the female.

Though bird-skins are collected in the neighbourhood of Bahia in large quantities, the present Ant-Thrush seems to be by no means of common occurrence. At the date of the compilation of his Catalogue of American Birds Sclater was not in possession of specimens of it, but has since obtained of the dealers in Paris examples of both sexes, from which our figures have been taken. These specimens present the usual form of skins of Bahian preparation, and, we have little doubt, were originally received from that province; indeed, as far as we are aware, the species is confined to this district of the Brazilian Empire, for neither Burmeister nor Natterer, nor any other collector in the more southern provinces appears to have met with it.

Ec Om

Plate LXXXI



J. Sm. del.

CONURUS HOFFMANNI

M. & N. Hanhart imp

PLATE LXXXI.

CONURUS HOFFMANNI.

(HOFFMANN'S CONURE).

<i>Conurus hoffmanni</i>	.	.	.	Cab. Sitz. Ges. Nat. Freunde z. Berlin, 13 Nov. 1861 et J. f. Orn. 1862, p. 335.
"	"	.	.	Finsch, Papageien, I. p. 553.
"	"	.	.	Lawrence, Ann. Lyc. N. Y. ix. p. 131.

Viridis; maculâ auriculari rubrâ: capitis et gutturis plumis aureo limbatis: secundariorum plumis ad basin aureis: caudâ subtus rubricante: rostro pallidissimè corneo; pedibus obscurè carneis: iride flavâ: long. totâ 9.0, alæ 5.2, caudæ 4.5.

Hab. in Costâ Ricâ.

The tract of land bounded on the north by the depression occupied by the Lakes of Nicaragua and Managua and on the south by the Isthmus of Panama contains a very well-marked sub-division of the Central-American Fauna. This state of things, as has been pointed out by Salvin in his recently published article on the birds of Veragua,* evidently originated in a previous geological epoch, in which this portion of the Isthmus was isolated from both Continents by channels connecting the Atlantic and Pacific Oceans. No better illustration of this well-established fact of Zoological geography can be given than is afforded by the numerous striking forms lately brought to light by the various collectors who have recently investigated the Ornithology of Costa Rica. Amongst the foremost and most energetic of these were Messrs. von Frantzius, Hoffman, and Ellendorf,—Prussian scientific travellers, for some time resident at San José and its neighbourhood. To the exertions of these gentlemen the Royal Museum of Berlin owes the valuable series of Costa-Rican birds, which contained the original example of the present species.

Hoffman's Conure, which has been deservedly dedicated to the memory of one of the Naturalists by whom it was discovered, is so well marked a species as hardly to need comparison with any other of the group known to us. It belongs to a very well-defined section of the genus (*Pyrrhura*) in which the under-surface of the tail feathers is more or less of a purple-red, and is the only member of this section found north of the Isthmus of Panama.

The specimens of this Parrot upon which Dr. Cabanis founded the species were obtained

* P.Z.S. 1867, p. 129.

by Dr. Hoffman at Agua Caliente, near Cartago, in Costa Rica. Subsequently examples were also sent to Berlin by Dr. v. Frantzius. In Mr. Lawrence's Catalogue of Costa-Rican birds it is stated that the Smithsonian Institution possesses skins of this species obtained at Angostura and Frailes by the Messrs. Carmiol, and by Mr. J. Cooper at Navarro. Mr. Julian Carmiol has also forwarded to Messrs. Salvin and Godman a single skin of a male of this Parrot from Angostura. From this individual our figure has been taken. As far as we know, this is the only specimen of *Conurus hoffmanni* in this country, but we learn from Dr. Finsch's recently published work that examples of it have been lately acquired by the Leyden Museum.

APRIL, 1869.



RALLUS ANTARCTICUS.

PLATE LXXXII.

RALLUS ANTARCTICUS.

(RUFIOUS-WINGED RAIL).

<i>Rallus antarcticus</i>	.	.	.	King, Zool. Journ. iv. p. 95 (1828).
"	"	.	.	Scl. & Salv. P.Z.S. 1868, p. 445.
<i>Rallus rufopennis</i>	.	.	.	G. R. Gray, List of Specimens of Birds in Brit. Mus. iii. p. 116 (1844).
<i>Rallus uliginosus</i>	.	.	.	Philippi, Wieg. Arch. 1858, I. p. 83.

Suprà brunneus nigro flammulatus, alis extùs dilutè rufis: alarum remigibus nigricantibus, unicoloribus: subtus plumbeus: lateribus et subalaribus nigris albo transfasciatis: long. totà 8·0, alæ 3·7, caudæ 1·5, rostri a rictu 1·3, tarsi 1·2.

Hab. in Chiliâ et Patagoniâ.

This Rail was first characterized by Captain King in 1828, in a letter on the animals met with during his survey of the Straits of Magellan of which extracts were published in the third and fourth volumes of the Zoological Journal. The description there given, though brief, is sufficient, we think, to justify us in adopting the name *antarcticus* for this species, regard being had to the fact that there is no other known Rail likely to be met with in Antarctic America to which Capt. King's description is at all applicable. But Capt. King gives us no information whatever as to the habits of this bird, nor does he mention the exact locality in which he obtained it.

A more satisfactory account of this Rail is that of Dr. R. A. Philippi—a well-known German Zoologist, who is now Director of the National Museum of Santiago, Chili. Dr. Philippi describes this bird very accurately under the name of *Rallus uliginosus*, and tells us that a single specimen of it was procured by Dr. Eulogio Salinas on his estate in the plain of Santiago, and presented to the Museum of that city. Other specimens appear to have subsequently occurred, for a collection of Humming-birds sent by Dr. Philippi to Mr. Gould a short time since contained an example of it which passed into the collection of Salvin and Godman and has formed the subject of our figure and description.

The British Museum contains a single stuffed specimen of this Rail, procured in Chili by the late Mr. Bridges. Mr. G. R. Gray has conferred upon it the name *Rallus rufopennis*, but has never published any description of it.

This Rail is of the same form as the well-known *Rallus virginianus*, of North America; from which, however, it is readily distinguishable by its plumbeous colour below. A third American species of this group, which also contains the European *Rallus aquaticus*, is figured in the next following plate.



PLATE LXXXIII.

RALLUS SEMIPLUMBEUS.

(SLATY-BREASTED RAIL).

<i>Rallus semiplumbeus</i>	.	.	.	Sclater, P.Z.S. 1856, p. 31.
"	"	.	.	Schlegel, Mus. d. P.B. <i>Ralli</i> , p. 11.
"	"	.	.	Scl. et Salv. P.Z.S. 1868, p. 445.

Supra brunnescenti-olivaceus, nigro flammulatus: alis caudâque nigricanti-brunneis: alarum tectricibus extus latè rufis: capitis lateribus et corpore toto subtus plumbeis: tectricibus subcaudalibus albis nigro maculatis: hypochondriis imis albo transfasciatis; rostro flavo, culmine et apice obscuris; pedibus clarè corylinis: long. totâ 8.5, alæ 4.4, caudæ 1.8, rostri a rictu 1.7.

Hab. in Novâ Granadâ interiore.

The Ornithology of the district surrounding the capital of the Republic of New Granada, or, as it is now called, the United States of Columbia, has been more thoroughly explored than perhaps any other portion of the South American continent. About thirty years ago bird-skins were first received in Paris from a French collector then resident in Bogotá; and since that time, the native Indians having been taught the method of preparing skins, large collections have been constantly imported into England, France, and America, from the same district. We have thus become well acquainted with its rich and varied Avifauna. The city itself being 9000 feet above the sea level, it is evident that the greater number of so-called "Bogotá" skins, which consist of tropical forms, must be obtained from the low-lying valleys, which intersect this part of the Cordillera in every direction. Along with these, however, are intermingled species of genera only to be met with in an Alpine climate, such as *Phrygilus*, *Diglossa* and *Otocorys*. Amongst these highland forms we believe the present Rail must be included, as it is a close ally of the preceding species, which is confined to the extreme southern portion of the South American continent, and is, doubtless, its southern representative.

Rallus semiplumbeus was originally described by Slater in one of a series of articles on the birds of New Granada, published in the Zoological Society's "Proceedings," from a specimen forwarded to him for examination by M. M. Verreaux. It is, as we have already said, closely allied to *R. antarcticus*, figured in our last plate, but may be distinguished by its larger and more brightly-coloured bill, the paler rufous of the wing-coverts, and the absence of transverse white markings on the upper part of the flanks.

Our figure of this species is taken from a "Bogotá" skin, in the collection of Salvin and Godman. There are likewise specimens of this Rail in the British and Leyden Museums.

In our memoir on the American Rallidæ, recently published in the Zoological Society's "Proceedings,"* we have given a complete account of the species of *Rallus* which inhabit the New World.

The two birds now figured belong to the second section of our arrangement, and along with *R. virginianus* form a group of small species which have the back variegated with brown, and are, in fact, the American representatives of the well-known Water-rail (*Rallus aquaticus*,) of Europe.

These three species may be distinguished as follows:—

1. *R. virginianus*.
Linn. Syst. Nat. p. 263 : Sci. et Salv. P.Z.S. 1868, p. 445.
Diagn. Subtùs rufescens.
Hab. Whole of North America (*Baird*) : Mexico : Guatemala (*Salvin*).
2. *R. antarcticus*, tab. lxxxii.
Diagn. Subtùs plumbeus : lateribus distinctè albo vittatis.
Hab. Chili (*Philippi*) : Patagonia (*King*).
3. *R. semiplumbeus*, tab. lxxxiii.
Diagn. Subtùs ferè omninò plumbeus.
Hab. Interior of New Granada.

* P.Z.S. 1868, p. 443.

APRIL, 1869.

Ex Orn

Plate LXXXIV.



J. Smit del.

M. & N. Hanhart imp.

PITYLUS HUMERALIS.

PLATE LXXXIV.

PITYLUS HUMERALIS.

(YELLOW-SHOULDERED PITYLUS).

Pitylus (Caryothraustes) humeralis . . . Lawr. Ann. L. N. Y. viii. p. 467.

Suprà flavo-viridis, pileo cinereo; loris et regione auriculari nigris; alis caudâque intus nigricantibus, extus dorso concoloribus; campterio alari flavissimo: subtus pallidè cinereus, gutture nigro variegato, ventre medio albescente, crisso flavo: rostro superiore nigro, inferiore plumbeo, ad tomas et ad apicem nigricante: pedibus nigris: long. totâ 6.0, alæ 3.5, caudæ 3.0, tarsi 0.8.

Hab. in Novâ Granadâ int. et in rep. Æquatoriali ad ripas fl. Napo.

Mr. George N. Lawrence, the well-known Ornithologist of New York, has lately described this remarkable species of Tanager in a paper on new American birds read before the Lyceum of Natural History of that city on the 18th of May, 1867. More recently a specimen of the same bird, from which our figure has been prepared, has come into Sclater's possession from a dealer in Paris. Mr. Lawrence's example is stated to have been derived from a Bogotá collection, while Sclater's is labelled as having been received from the Rio Napo. This is not an unusual range, and the bird may probably inhabit the eastern slopes of the Andes, drained by the affluents of the Orinoco and Upper Amazon.

The present Tanager, though conspicuously different from its nearest allies in colour, belongs strictly to the section *Caryothraustes* of the genus *Pitylus* according to Sclater's arrangement.* The bill is rather longer and the culmen more arched than in *P. viridis*, the type of the genus, with which it otherwise agrees in structure.

The four species of this sub-division of the genus *Pitylus* now known to us may be arranged as follows:—

A.—Species ventre flavo.

1. *P. VIRIDIS*.

Loxia canadensis, Linn. S.N. i. p. 304: Buff, Pl. Enl. 152, f. 2. *Pitylus canadensis*, Cab. in Schomb. Guian. iii. p. 677. *Coccothraustes viridis*, Vieill. Enc. Meth. p. 1017. *Caryothraustes viridis*, Cab. Mus. Hein. i. p. 144. *Caryothraustes cayennensis*, Bp. Consp. p. 504 (partim). *Pitylus personatus*, Less. R. Z. 1839, p. 42. *Canada grosbeak*, Lath. Gen. Hist. v. p. 282. *Pitylus viridis*, Scl. P.Z.S. 1856, p. 65: Cat. Am. B. p. 99: Scl. et Salv. P.Z.S. 1867, p. 572.

Diagn. Minor: rostro debiliore; gulâ augustiore nigrâ.

Hab. Cayenne (*Buffon*): Brit. Guiana (*Schomburgk*): Para (*Wallace*).

* P.Z.S. 1856, p. 65, et Cat. Am. B. p. 99.

2. P. BRASILIENSIS.

Fringilla viridis, Max. Beitr. iii. p. 555. *Fringilla cayennensis*, Licht. Verz. d. Doubl. p. 22 (excl. syn.).
Caryothraustes brasiliensis, Cab. Mus. Hein. p. 144: Burm. Syst. iii. p. 208. *Pitylus brasiliensis*, ScL.
P.Z.S. 1856, p. 66 et Cat. Am. B. p. 99.

Diagn. Major: rostro fortiore: gulâ latiore nigrâ.

Hab. Wood region of S. E. Brazil (*Max.* et *Burmeister.*)

B. Species ventre cinereo.

3. P. POLIOGASTER.

Pitylus polioaster, Du Bus, Bull. Ac. Brux. xiv. pt. 2, p. 105; Rev. Zool. 1848, p. 245, et Esquiss. Orn. t. 22:
ScL. P.Z.S. 1856, pp. 66, 302, et 1859, p. 376: ScL. et Salv. Ibis, 1860, p. 32: P.Z.S. 1864, p. 352: Salv.
P.Z.S. 1867, p. 141: Lawr. Ann. Lyc. N. Y. ix. p. 102. *Pitylus flavocinereus*, Cassin. Pr. Ac. Phil. 1848,
p. 67: *Caryothraustes episcopus*, Bp. Consp. p. 504.

Diagn. Pileo et pectore flavis; crisso cinereo.

Hab. Southern Mexico (*Sallé*): Guatemala (*Salvin*): Costa Rica (*Carmirol*): Veragua (*Arcé*): Panama
(*McLeannan*).

4. P. HUMERALIS, tab. lxxxiv.

Diagn. Pileo et pectore cinereis: crisso flavo.

Hab. New Granada and Ecuador.

APRIL, 1869.



PLATE LXXXV.

ACCIPITER GUTTATUS.

(AZARA'S SPARROW-HAWK).

<i>Esparvero pardo y goteado</i>	.	.	.	Azara, Apunt. i. p. 113, N. 24.
<i>Sparvius guttatus</i>	.	.	.	Vieillot, N. D. d'H. N. x. p. 325 et E. M. p. 1266.
<i>Accipiter guttatus</i>	.	.	.	Strickl. Orn. Syn. p. 110.

Suprà fumido-niger, pileo obscuriore, capitis lateribus plumbeis: subtùs rufus, gutture plumbescentiore, maculis indistinctis albis omnino notatus: tibiis ferrugineo-rufis; crisso purè albo: subalaribus rufis: remigibus intùs albis nigricante transvittatis: caudà suprà fumido-nigrâ, subtùs cinerascanti-albâ nigro irregulariter transvittatâ: rostro nigro, cerâ flavicante: pedibus flavis, unguibus nigris: long. totâ 14.0, alæ 7.9, caudæ 6.5, tarsi 2.2. *Fem.* Mari similis, sed major, long. totâ 19.0, alæ 9.7, caudæ 8.0, tarsi 2.0.

Hab. in Paraguayâ (*Azara*): Boliviâ (*Mus. Brit.*).

We first met with examples of this Sparrow-hawk in the collection of the British Museum, and, recognizing its distinctness from the nearly allied *Accipiter chilensis* and *A. cooperi*, were for some time inclined to regard it as undescribed. But a patient study of the complicated synonymy of this group of birds has brought us to the belief that it *may possibly be* the *Esparvero pardo y goteado* of Azara, upon which Vieillot established his *Sparvius guttatus*, and it seems better to employ this otherwise useless name for it than to invent a new one. The specimens first spoken of by Azara seem to have been immature, but the example described by his friend Nosedá (*l. c.* p. 114) in which the breast was cinnamomeous, appears to indicate a species resembling the adult of the present bird.

In general form and dimensions this Hawk closely resembles *Accipiter chilensis*, of which it is no doubt the representative in the forests of the eastern side of the Andes; but it is at once distinguishable by the full rufous of the under plumage. On the breast and belly this is variegated by numerous incomplete white cross-bands, which occupy both webs of each feather, leaving the centre rufous. These cross-bands are less apparent on the flanks, and totally disappear on the thighs and under wing-coverts; the chin and throat are suffused with slate colour. Next to *A. chilensis*, Azara's Sparrow-hawk presents greater resemblance to *A. cooperi* than to any other species of the group with which we are acquainted, though, judging from Mr. Lawrence's description, it cannot be unlike the Cuban *A. gundlachi*, a species we have not yet been fortunate enough to meet with. From *A. cooperi*, the present bird is readily distinguishable by the more cinnamomeous colouring below, and the pure unspotted rufous of the thighs and under wing-coverts. In *A. cooperi* also the sides of the head and ear-coverts are finely striped, which is not the case in *A. guttatus*.

Besides the two examples in the British Museum, which were purchased in 1851 and are said to have been received from Bolivia, we have only met with one other example of this species—a mounted specimen in the Norwich Museum, from which our figure has been prepared.

The following are the known American species of *Accipiter* of the present group, which embraces the larger species allied to *A. pileatus* and *A. cooperi*. Prince Bonaparte has applied to them the barbarous name *Cooper-astur* (!) (Rev. Zool. 1854, p. 538.)

Sect. A. Species uniformly coloured beneath, as in *A. pileatus*,—

1. *A. PILEATUS*.

Falco pileatus, Temm. Pl. Col. 205; Max. Beitr. iii. p. 107: *Nisus pileatus*, Burm. Syst. Ueb. ii. p. 73: *Accipiter pileatus*, Lawr. Ann. N. Y. Lyc. vii. p. 254. "*Nisus variatus*—Cuv." in Mus. Par. (partim.)
Hab. S. E. Brazil.

2. *A. BICOLOR*. Ex. Orn. tab. lxi. p. 137.

Hab. Guiana, Upper Amazon, Ecuador, and northwards to North America.

Sect. B. Species more or less mottled beneath, as in *A. cooperi*,—

3. *A. COOPERI*.

Falco cooperi, Bp. Am. Orn. ii. t. 1. *F. stanleyi*, Aud. Orn. Biogr. p. 186. *Accipiter cooperi*, Cassin, in Baird's Birds of N. Am. p. 16. Sci. P.Z.S. 1859, p. 389: 1866, p. 304: Sci. & Salv. Ibis, 1860, p. 401: Lawr. Ann. Lyc. N. Y. ix. p. 134. *Acc. mexicanus* Sw. et auctt. Americ. (?)
Hab. Temperate N. America, and southwards to Costa Rica.

4. *A. GUNDLACHI*.

Accipiter cooperi, Lembeye, Aves de Cuba, p. 17: *Nisus pileatus*, Lembeye, l. c. p. 125. *Astur pileatus*, Cab. et Gundl. J. f. Orn. 1854, Extra-h. p. lxxxii. *Accipiter gundlachi*, Lawr. Ann. Lyc. N. Y. vii. p. 252: Gundl. Rep. F. N. i. p. 224.
Hab. Cuba.

5. *A. GUTTATUS*. Ex. Orn. tab. lxxxv. p. 169.

Hab. Bolivia and Paraguay.

6. *A. CHILENSIS*, Ex. Orn. tab. xxxvii. p. 73.

Hab. Chili and Patagonia.

Sect. C. Species broadly barred below, and with the breast rufous,—

7. *A. PECTORALIS*.

Falco pectoralis, Bp. Rev. Zool. 1850, p. 490—*Acc. pectoralis*, Selater, Ibis, 1861, p. 313, t. 10 et P.Z.S. 1866, p. 304—*Astur pectoralis*, Pelz. Orn. Bras. p. 6—Schlegel, Mus. de P. B. *Astures*, p. 18.
Hab. Brazil: Ypanema and Borba, (Natt.)

APRIL, 1869.



J. Smith del.

AMPELION ARCUATUS.

M. & N. Eschsch. imp.

PLATE LXXXVI.

AMPELION ARCUATUS.

(BANDED COTINGA).

<i>Ampelis arcuatus</i>	. . .	Lafr. Rev. Zool. 1843, p. 98.
<i>Pyrrhorhynchus arcuatus</i>	. . .	Bp. Consp. p. 177.
<i>Ampelion arcuatus</i>	. . .	Scl. P.Z.S. 1855, p. 152, 1858, p. 553 et 1860, p. 89.
<i>Ampelio arcuatus</i>	. . .	Scl. Cat. Am. B. p. 255.

Viridis, capite et gutture toto nigris: alis caudâque nigris extûs viridi partim limbatis; tectricibus majoribus et secundariis in pogoniis externis flavido maculatis, horum necnon caudæ rectricum apicibus albo angustè terminatis: subtùs flavus, nigro regulariter transfasciatus: rostro rubro, pedibus aurantiacis: long. totâ 9·3, alæ 4·5, caudæ 3·5, tarsi 1·1. *Fem.* Mari similis, sed capite viridi, gulâ parcè nigro trans-lineatâ.

Hab. in montibus Novæ Granadiæ et reipubl. Æquatorialis.

The late Baron de Lafresnay first described this fine species of Cotinga in one of his papers on new American birds published in the "Revue Zoologique." The locality there given to it is New Granada. It is not, however, of very frequent occurrence in Bogotá collections, but few specimens having come under our examination in the many thousands of bird-skins we have seen from this district.

In his journey to Western Ecuador in 1858-60 Mr. Fraser met with this bird in two localities—at Matos on the plateau of Riobamba, and above Puellaro, a village on the Rio Perucho north of Quito, where his collecting-ground was about 8000 feet above the sea-level. Mr. Fraser states that the stomachs of specimens examined contained fruit, and that the bird frequents the trees on the mountain-tops and has a sweet note. He describes the irides as "grayish," or "light-hazel," the legs and feet "deep orange," and the bill "red."

This Cotinga belongs to the strongly-formed green group allied to *Pipreola* which Dr. Cabanis has called *Ampelion*,* and subsequently *Ampelio*.† Its nearest ally seems to be *Ampelion melanocephalus*, figured in Swainson's "Zoological Illustrations" (series i. t. 25), but it is immediately recognizable by its red bill and distinctly barred under-surface—in the former point approaching more nearly to the genus *Pipreola*.

Our figures of this species are taken from specimens in Sclater's collection. The male is a "Bogotá" skin, and the female one of Fraser's examples, killed at Matos.

* Tschudi's Faun. Per. Aves, p. 137.

† Mus. Hein. ii. p. 104.

The four species of this genus of Cotingas known to us may be arranged as follows:—

A. Species rostro debiliore: gulâ et loris cum capite toto nigris.

a. interscapulio brunneo.

1. AMPELION CUCULLATUS.

Procnias cucullata, Sw. Zool. Ill. i. t. 37: *Ampelis cucullatus*, Temm. Pl. Col. 363: *Ampelion cucullatus*, Cab. in Tsch. F. P. p. 137: Burm. Syst. Ueb. ii. p. 432: *Ampelio cucullatus*, Cab. & Hein. Mus. Hein. ii. p. 104: Scl. Cat. Am. Birds, p. 255: *Carpornis cucullata*, Bp. Consp. p. 176.

Hab. S. E. Brazil.

b. interscapulio viridi.

a' rostro corallino, corpore subtus distinctè nigro transfasciato.

2. AMPELION ARGUTATUS, tab. lxxxvi. p. 171.

Hab. Ecuador: New Granada.

b' rostro nigro, corpore subtus fasciis indistinctis notata.

3. AMPELION MELANOCEPHALUS.

Ampelis melanocephalus, Max. Reise i. p. 168 et Beitr. iii. p. 401: *Procnias melanocephalus*, Sw. Zool. Ill. i. t. 25: *Ampelion melanocephalus*, Cab. in Tsch. F. P. p. 137: Burm. Syst. Ueb. ii. p. 432: *Ampelio melanocephalus*, Cab. & Hein. Mus. Hein. ii. p. 104: Scl. Cat. Am. Birds, p. 255: *Carpornis melanocephala*, Bp. Consp. p. 176.

Hab. Wood-region of S. E. Brazil.

B. Species rostro fortiore: gulâ et loris flavidis: pileo nigerrimo.

4. AMPELION CINCTUS.

Ampelis cinctus, Tsch. Wieg. Arch. 1843, p. 385, et F. P. p. 136: *Cotinga tschudii*, Gray, Gen. Birds, i. p. 279: *Ampelion cinctus*, Scl. P.Z.S. 1855, p. 152, pl. 104, et 1860, p. 89: *Ampelio cinctus*, Scl. Cat. Am. Birds, p. 255: *Ampelioides flavitorques*, Verr. Nouv. Arch. de Mus. iii. Bull. p. 5, pl. 2, fig. 1.

Hab. Eastern Peru (*Tsch.*): Ecuador (*Fraser*): New Granada (*Mus. P. L. S.*).

APRIL, 1869.



J. Smit lith

M. & N. Haworth imp

ASTURINA NATTERERI

PLATE LXXXVII.

ASTURINA NATTERERI.

(NATTERER'S BUZZARD-HAWK).

<i>Falco magnirostris</i>	.	.	.	Max. Beitr. iii. p. 102.
"	.	.	.	Temm. Pl. Col. 86.
<i>Astur magnirostris</i>	.	.	.	Pelz. Orn. Bras. p. 6.
<i>Nisus magnirostris</i>	.	.	.	Burm. Syst. Ueb. ii. p. 76.
<i>Falco magnirostris</i>	.	.	.	Spix, Av. Bras. i. p. 18 (partim).
<i>Asturina nattereri</i>	.	.	.	Scl. et Salv. P.Z.S. 1869, p. 132.

Suprà fusca, pileo cineraceo perfuso: remigibus primariis ferrugineis nigro transfasciatis, intùs in pogonio interiore lactescenti-albis, ad apicem fuscis: caudâ fuscâ, subtus dilutior, ferè albescente, nigro tri-vittatâ et in rectrice extimâ ad basin variegatâ: subtus saturatè rufa; gutture cinereo, albo variegato: ventre toto et tibiis albicescente cinnamomeo frequentèr transfasciatis: crisso albo: tectricibus subalaribus cinnamomeis, rufo fasciolatis: rostro nigricante, cerâ flavâ, pedibus flâvidis: long. totâ 13·0, alæ 8·0, caudæ 5·75, tarsi 2·3. *Junior.* Suprà plumis rufescente marginatis; subtus albidus, pectore nigro flammulato: ventre rufescente transfasciato.

Hab. in Brasiliâ meridionali.

As we have lately shewn in our paper on the genus *Asturina* published in the first part of the Zoological Society's "Proceedings" for the present year, there has hitherto prevailed much confusion amongst the different species of Hawks which constitute this genus. We hope that the figures given in this and the next following plates will serve to assist Naturalists to accomplish the difficult task we have commenced of endeavouring to restore order to the group.

The *Falco magnirostris* of Gmelin rests upon the bird figured in Buffon's Planche Enluminée, no. 116, under the name '*Epervier à gros bec de Cayenne.*' The name *magnirostris* must therefore be retained for the Guianan representative of this section of the genus, from which the present species may be easily distinguished by the rich rufous colouring of the under-surface, particularly of the flanks and thighs. *Asturina magnirostris* is of nearly a pure cinereous below, slight indications of rufescent tinge being only seen upon the darker bands of the belly and the thighs. In *A. nattereri* the throat is darker cinereous, and distinctly striped with white longitudinally; the breast is rich rufous in very adult birds, almost without cross markings; the belly is very pale fulvous, or almost cream-colour, with numerous cross-bands of deep ferruginous; the thighs are covered by minute cross-bands of the same colour. In *A. magnirostris* the thighs are pure white, cross-banded with pale cinereous, with merely a slight rufescent tinge. The upper plumage in *A. magnirostris* is also clear cinereous, instead of brown.

The first Naturalist who appears to have distinguished these two allies was Natterer, who, however, in his manuscripts unfortunately called the present bird *magnirostris*, and named its Guianan representative (the true *magnirostris*) *macrorhynchus*. This we have been enabled to ascertain positively from one of Natterer's marked specimens, now in the collection of Messrs. Salvin and Godman.

As will be seen from von Pelzel's list, Natterer collected a large number of this species in various parts of Southern and Inner Brazil; but the specimens referred to as obtained by him at Barra do Rio Negro are more probably referable to the true *A. magnirostris*. An excellent series of examples of this Hawk, collected in the vicinity of Bahia, has lately been received by Salvin from Dr. Wucherer. We have also to thank the authorities of the Norfolk and Norwich Museum for the loan of many specimens of this and other species of the group from their fine collection of Rapacious birds.

Prince Max. of Neuweid, tells us this Hawk is one of the commonest birds of prey in all the provinces of Brazil which he visited, and was met with in the open districts as well as in the forests. It appears to frequent most such parts of the country as are varied with bushes, woods and roads, and may be often seen perched on the branch of a moderately sized tree, watching for its prey, which consists of all sorts of small animals. In its crop Prince Max. usually found grasshoppers, and the remains of birds, mice, and other small mammals. The flight and cry of this bird are stated to resemble those of the European Buzzard.

It is very difficult to decide positively whether Spix's figure of *Falco insectivorus* (Av. Bras. i. t. VIII. a) is intended to represent the present bird or the true *A. magnirostris*. As far as we can make out from his text, he appears to have had both species under view. We have, therefore, thought it better to call the present bird *nattereri*, after the illustrious Naturalist who first appreciated the differences between the two species.

Our figure of the adult of this bird is taken from a Brazilian specimen in the Norwich Museum: that of the younger bird from a skin transmitted to us by Dr. Wucherer.

APRIL, 1869.



PLATE LXXXVIII.

ASTURINA RUFICAUDA.

(RED-TAILED BUZZARD-HAWK).

<i>Asturina magnirostris</i>	.	.	.	Sclater, P.Z.S. 1856, p. 285, 1859, p. 368, 1864, p. 178.
"	"	.	.	Scl. et Salv. Ibis, 1859, p. 217.
"	"	.	.	Lawr. Ann. L. N. Y. vii. p. 316, viii. p. 178.
"	"	.	.	Moore, P.Z.S. 1859, p. 52.
<i>Asturina ruficauda</i>	.	.	.	Scl. et Salv. P.Z.S. 1869, p. 133.

Suprà obscure cinerea; remigibus primariis ad basin ferrugineis, nigro transfasciatis, intùs in pogonio interiore cinnamomeis, ad apices nigricantibus: subtùs gulà et pectore obscure cinereis: ventre toto cum tibiis ferrugineo et pallido fulvo frequenter transfasciatis; crisso cinnamomeo: caudà nigrà, ferrugineo latè trivittatà et terminatà: tectricibus subalaribus cinnamomeis: rostro nigro, cerà flavà; pedibus flavis, unguibus nigris: long. totà 14.0, alæ 8.5, caudæ 6.0, tarsi 2.5. *Junior.* Suprà fusca; gutture fusco flammulato, ventris maculis sagittatis fuscis.

Hab. in Americâ centrali a Mexico merid. usque ad isthmum Panamensem.

As we have already shown in our paper before referred to, the northern representative of the present group of *Asturinae* appears in its adult dress to be readily distinguishable from the southern forms, and to require specific separation. From *A. magnirostris* and *A. nattereri* it differs in the deep red tail-bands, the corresponding colour in the two last-mentioned species being pale cinereous. In younger specimens of *A. ruficauda* these bands are likewise cinereous, but in nearly every case show traces of rufescent colouring beginning to appear. In the general colour of its under plumage *A. ruficauda* more nearly resembles *A. nattereri* than *A. magnirostris*, having the belly, flanks, and thighs of the same rich ferruginous tinge which distinguishes *A. nattereri*; but in the present bird the throat and chest are usually of a pale cinereous, thus more resembling *A. magnirostris*.

We have seen a great number of specimens of this species from various parts of Southern Mexico and Central America. In Guatemala, where it is one of the commonest species of Hawk, Salvin obtained examples from the plains of Zacapa, the Pacific coast-region, the valley of the River Polochic, Choctum in the forest-region of Vera Paz, and the savanas of the district of Peten.

Asturina ruficauda, though thus widely distributed, is not found in the elevated mountain districts, but frequents the lowland plains up to an elevation of about 2500 feet above the sea-level. Its food in Guatemala consists almost entirely of small snakes and lizards; in one specimen, collected at Chimalapa, on the plain of Zacapa, the stomach is noted as having contained "centipedes."

Southwards of Guatemala this Buzzard-hawk is generally distributed over the Central-

American Isthmus down to the Panama railway-line. We have received specimens from Costa Rica and Veragua, and a considerable series from Panama collected by Messrs. McCleannan and Hughes. In the adult Panama birds, the rufous of the tail is particularly bright, and the black bars well defined; and the cinereous breast is rather more pure than in Guatemalan examples. Our principal figure is taken from one of these Panama specimens in the collection of Messrs. Salvin and Godman. The younger bird, represented in the background, was obtained by Salvin on the southern slope of the Volcan de Fuego in Guatemala.

APRIL, 1869.

Ex. Orn

Plate LXXXIX.



J. Smith del.

ASTURINA PUCHERANI.

M & N Hanhart imp.

PLATE LXXXIX.

ASTURINA PUCHERANI.

(PUCHERAN'S BUZZARD-HAWK).

<i>Esparvero indayé</i>	.	.	.	Azara, Apunt. I. p. 131, no. 30.
<i>Astur magnirostris</i>	.	.	.	Hartl. Ind. Azara, p. 2.
" "	.	.	.	D'Orb. Voy. Ois. p. 91.
<i>Nisus magnirostris</i>	.	.	.	Burm. P. Z. S. 1868, p. 633. (?)
<i>Asturina pucherani</i>	.	.	.	J. et E. Verreaux, R. Z. 1855, p. 350.
<i>Falco gularis</i>	.	.	.	Licht. in Mus. Berol.
<i>Rupornis gularis</i>	.	.	.	Licht. Nomencl. p. 3.
<i>Asturina gularis</i>	.	.	.	Schlegel, Mus. de P. B. <i>Asturina</i> , p. 4 (1862).
<i>Asturina pucherani</i>	.	.	.	Scl. et Salv. P.Z.S. 1869, p. 133.

Suprà obscure fusca: capite obscuriore; remigibus primariis ad basin ferrugineis nigro transfasciatis, intùs in pogonio interiore cinnamomeis ad apicem nigris: gulà fusco-nigrâ: pectore et ventre toto cum tibiis pallidè fulvis, lineis angustis ferrugineis parcè transfasciatis: caudâ nigricante, rufo latè trivittatâ et terminatâ; rostro nigro, cerâ et pedibus flavis: unguibus nigris: long. totâ 15·5, alæ 10·0, caudæ 6·5, tarsi 3·0. *Junior*. Suprà fuscuscentior, plumarum marginibus pallidis: fronte et superciliis fulvescentibus: gulâ albidâ: pectore sparsim nigro flammulato.

Hab. in rep. Argentinâ, Paraguayâ, et Boliviâ.

We now give a figure of a third species of *Asturina*, belonging to the same group as those represented in the preceding plates, but occupying, as is usually the case with such near allies, a distinct area, in which it plays a corresponding part in the economy of nature.

The earliest author after the time of Azara, that seems to have noticed this *Asturina* is d'Orbigny, who, in speaking of his so-called *Astur magnirostris*, draws especial attention to the differences between his series of this bird from Corrientes and Bolivia, and that in the Paris Museum from Brazil, and concludes that they form "two distinct and constant varieties." But the first specific name directly applied to it appears to be *pucherani*, under which title the MM. Verreaux described the immature dress of this species in the "Revue de Zoologie" for 1855. A mounted specimen belonging to the Norwich Museum is marked as the original of this description in the handwriting of M. Jules Verreaux, and perfectly accords with the characters given. We believe we are correct in referring it to the immature dress of the present species. A nearly similar specimen is in the British Museum, also received from Verreaux under the name *Asturina pucherani*, but with "Guatemala" attached as a locality. This is undoubtedly an error, as it does not correspond with any one of our extensive series of the Central-American form.

At the time when our notes on the genus *Asturina* published in the Zoological Society's "Proceedings" for 1869 were written, we were not perfectly certain whether Schlegel's *Asturina gularis* in the Leyden Museum was referable to the present bird. Soon afterwards, our artist, Mr. Smit, being in Leyden, we requested him to make a coloured drawing of Schlegel's type-specimen, which, by the kindness of the authorities of that celebrated institution, he was permitted to do. Upon his return to this country with the drawing we had no difficulty in recognizing in it the adult dress of *Asturina pucherani*.

Of the three other species belonging to the present section this *Asturina* appears to resemble most nearly the northern *A. ruficauda*, having the tail-bands rufous instead of pale cinereous. But it is immediately distinguishable in the adult dress by its dark throat (from which, no doubt, Lichtenstein derived his name *gularis*), and by the pale ochraceous colouring of the lower surface.

There is a single adult specimen of this Hawk in the Gallery of the British Museum said to have been received from Bolivia.

Our principal figure of this species is copied from the drawing already spoken of, which was made by Mr. Smit from the typical specimen of *Asturina gularis* in the Leyden Museum, and represents it at two-thirds of the natural size. The figure in the back-ground is taken from the typical specimen of *Asturina pucherani* in the Norwich Museum, which has been kindly lent to us for this purpose.

MAY, 1869.

Ex. Orn.

Plate XC



J. Smith lith

ASTURINA PLAGIATA.

M & N Hanhart imp

PLATE XC.

ASTURINA PLAGIATA.

(LICHTENSTEIN'S BUZZARD-HAWK).

<i>Falco plagiatus</i>	.	.	.	Licht. in Mus. Berol.
<i>Asturina plagiata</i>	.	.	.	Schlegel, Mus. d. P. B., <i>Asturina</i> , p. 1.
"	"	.	.	Scl. et Salv. P.Z.S. 1869, p. 130.
<i>Asturina nitida</i>	.	.	.	Cassin, in Baird's Birds of N. A., p. 35.
"	"	.	.	Scl. P.Z.S. 1857, pp. 201, 227; 1859, pp. 368, 389: 1864, p. 369.
"	"	.	.	Scl. et Salv. Ibis, 1859, p. 217.
"	"	.	.	Salvin, Ibis, 1861, p. 68.
"	"	.	.	Lawr. Ann. Lyc. N. Y. ix. p. 133.

Suprà cinerea: subtùs dilutior, fasciis angustis albis omninò, nisi in gutture, transvittata; crisso et tectricibus caudæ superioribus albis: tectricibus alarum inferioribus et remigum pogoniis internis albis, fasciis quibusdam cinereis: caudâ nigrâ, albo trivittatâ et angustè terminatâ: rostro nigro, cerâ et pedibus flavis: long. totâ 14.5, alæ 9.4, caudæ 6.0, tarsi 2.8. *Fem.* Mari similis, sed major; long. tot. 17, alæ 10.5, caudæ 6.8, tarsi 3.0. *Junior.* Suprà nigricanti-brunnea, fulvo paululùm mixta; subtùs alba, nigricanti-fusco guttata, tibiis hoc colore frequentèr transfasciatis: caudâ suprà fumido-fuscâ, subtus cinereâ; nigro frequentèr transfasciatâ.

Hab. in Mexico, Guatemalâ, et Costâ Ricâ.

Although, as will be seen from our list of synonyms, numerous specimens of this Hawk have from time to time passed through our hands, we have, until recently, failed to distinguish it from its southern representative. Nor have the American naturalists, who have met with this species upon the southern confines of the great Republic been more discriminating, as they also have associated it with the well-known *Asturina nitida*. The two species are, nevertheless, separated by very conspicuous characters, as is amply shewn by the series of specimens contained in the collection of Salvin and Godman which is now before us.

In the adult of the present bird the whole upper surface is uniform dark cinereous, without any traces of cross-bars externally, except some faint markings upon the lesser wing-coverts. In *A. nitida*, on the contrary, the whole upper surface is regularly crossed with transverse bars, which are narrower and more frequent upon the upper part of the head and neck. The lower surfaces of the two allies are very similar, except that the throat in the northern bird is cinereous instead of being of a pure white. The lower white tail-band in *A. plagiata* is likewise narrower than in *A. nitida*. In comparing the immature birds of the two species certain differences are also apparent. In the first plumage of the present bird the thighs are distinctly crossed with numerous brownish-black bands upon a white ground, while in *A. nitida* these parts are rufous, more or less intense, but without any traces of these markings.

This Hawk has an extensive range in Central America, reaching from the northern frontiers of Mexico down to Costa Rica. In consequence of its having been obtained by Lieut. D. N. Couch in the Mexican province of New Leon in 1853 Prof. Baird has included it in his work on the birds of North America, but we have not yet heard whether it has since been found north of the frontier-line.

In Southern Mexico it would appear to be common, having been included in most of the collections made by M. Sallé and his correspondents in Vera Cruz and the adjoining States, as well as in Mr. White's series from the vicinity of the city of Mexico. In Guatemala Salvin found this Hawk likewise abundant in the lowlands and up to an elevation of about 3000 feet. Here it is generally seen singly, watching for its prey amongst the trees that are scattered over the more open districts, or in the outskirts of the forest clearings. Its food is principally Lizards of various sorts (such as *Tropidolepis torquatus*, *Cnemidophorus undulatus*, and various species of *Anolis*), which abound in such localities. Many skins of this bird were obtained both in Vera Paz and in the Pacific coast-region. In the former district, near San Geronimo, Mr. Robert Owen found it breeding, in April, 1860, as recorded in "The Ibis." Mr. Owen tells us that its nest is placed in the high trees which are scattered over the plains, and not unfrequently within a few yards of the Indian ranchos.

The number of eggs in one nest is two. They are white, without any markings, but have the inner coating of a sea-green, as in *Astur palumbarius*.

Our authority for the occurrence of this species in Costa Rica rests upon a single specimen shot by Arcé at La Barranca on the Pacific slope in March 1864. This bird is in immature plumage, but presents traces of the adult dress on various parts of the back, so that there can be no doubt of its belonging to the present species, and not to the true *A. nitida*, which, though common on the Panama Railway-line, does not appear to range further north.

Our figure of the adult of this bird (two-thirds of the natural size) is from a Guatemalan skin obtained by Messrs. Salvin and Godman, in December, 1861, on the southern slopes of the Volcan de Fuego. That of the immature bird in the back-ground, is from the typical specimen of *A. plagiata* in the Berlin Museum, which Dr. Peters has most kindly lent to us for this purpose.

The subjoined table may, perhaps, assist in distinguishing the seven species of the genus *Asturina*, in their adult dress:—

A. Suprà cinereæ aut fuscæ : subtus plus minusve transfasciatæ—			
a. prim. pogoniis internis albis nigro transfasciatis :			
	supra transfasciata	.	1. <i>nitida</i> .
	supra unicolor	.	2. <i>plagiata</i> .
b. prim. pogon. int. rufis nigro transfasciatis :			
a'. caudæ fasciis cinereis :			
	tibiis albis, cinereo transfasciatis	.	3. <i>magnirostris</i> .
	tibiis fulvis, rufo transfasciatis	.	4. <i>nattereri</i> .
b'. caudæ fasciis rufis :			
	gulâ et pectore cinereis	.	5. <i>ruficauda</i> .
	gulâ obscure fusca, pect. fulvescente	.	6. <i>pucherani</i> .
B. Suprà et subtus unicolor niger	.	.	7. <i>leucorrhœa</i> .

MAY, 1869.



J. Smit lith.

M. & N. Hanhart, imp.

BOTAURUS PINNATUS.

PLATE XCI.

BOTAURUS PINNATUS.

(BAR-WINGED BITTERN).

<i>Ardea pinnata</i>	.	.	.	Licht. in Mus. Berol. : Nomencl. p. 89.
" "	.	.	.	Wagl. Isis, 1829, p. 662.
" "	.	.	.	Burm. Syst. Ueb. iii. p. 408.
" "	.	.	.	Schlegel, Mus. d. P. B. <i>Ardeæ</i> , p. 49.
<i>Botaurus pinnatus</i>	.	.	.	Bp. Consp. ii. p. 136.
" "	.	.	.	Cab. in Schomb. Guian. iii. p. 754.
" "	.	.	.	Léotaud, Ois. de Trin. p. 429.
" "	.	.	.	Lawr. Ann. Lyc. N. Y. viii. p. 184.
<i>Ardea brasiliensis</i>	.	.	.	Max. Beitr. iv. p. 642 (1833).

Suprà ochraceo-flavescens; cervice posticâ, alis extus et dorso inferiore nigro frequentèr transfasciatis; interscapulio nigro flammulato: pileo nigricante, plumis ochraceo limbatis: remigibus nigris, præcipuè in secundariis ochraceo terminatis et notatis: rectricibus acutis, nigris, præcipuè ad margines ochraceo variegatis: subtus albus, in pectore fulvo lavatus, et flammulis elongatis rufescenti-ochraceis ornatus; hypochondriis et tibiis extus nigricante frequentèr transfasciatis: rostro flavicante, culmine obscuro: pedibus clarè corneis: long. totâ 26·0, alæ 11·0, caudæ 4·0, rostri a rictu 4·5, tarsi 4, digiti medii cum ungue 4·5, dig. post. c. u. 3·3.

Hab. in Brasiliâ merid. orient. (*Max. et Burm.*): Guianâ Brit. (*Schomb.*): ins. Trinitatis (*Leotaud*): Nicaraguâ (*Holland*).

The late Professor Lichtenstein was the first to discriminate this, as well as many other rare species of American birds, but contented himself with affixing to it the name *Ardea pinnata*, in the Berlin Museum. Under this title it was first described by Wagler, in one of his papers in the "Isis" containing additions and emendations to his Systema Avium. Wagler, as usual, gives an excellent account of the bird, and clearly points out the many marked characters in which it differs from its allies of the same genus. A few years later, Prince Max. of Neuwied, likewise published an accurate description of this Bittern, but unfortunately referred it to the Linnæan *Ardea brasiliensis*, which is a species of Tiger-Bittern. Prince Max. tells us that it is not so common in Brazil as the bird called by him *Ardea lineata*, which is the Tiger-Bittern figured in our next plate. Both the Prince and Burmeister state that it does not differ in habits from other species of the genus.

Besides the present bird, only one true Bittern is known to inhabit any portion of the New World—that is the *Botaurus lentiginosus* of authors, which occasionally strays on to the western shores of Europe.

The latter species extends over the whole of North and Central America, and, according to Schomburgk, is found in the marshes of British Guiana, in company with the former. It has not, however, as far as we are aware, been yet recorded as occurring in any more southern locality, and in southern Brazil appears to give way entirely to the bird which we now figure. On the other hand, the present species seems to advance as far northwards as Nicaragua, for, though Mr. Lawrence expresses some doubt as to his identification of Mr. Holland's bird, we do not think there is any other species to which it can be referred.

Upon comparing *B. pinnatus* with *B. lentiginosus*, it is not difficult to point out many obvious differences. The under-plumage of the two birds is much alike, except that in the former the throat is pure white, and wants the two conspicuous black stripes which in *B. lentiginosus* border each side of the neck. Above the two allies are very different, the whole upper plumage in *B. pinnatus* being conspicuously crossed by numerous transverse bars, which are entirely wanting in *Botaurus lentiginosus* and are replaced on the scapularies, outer margins of secondaries and wing-coverts with dense freckling. It is this difference in the wing-markings, we suppose, which led Lichtenstein to call the present bird *pinnatus*. Another conspicuous character of this Bittern is the length of the hind-toe and great size of the claw. In the specimen now before us, the hind-toe is two inches, and its claw nearly one inch and a half in length. In a skin of *B. lentiginosus* the corresponding dimensions are 1.5 in. and 1.1 in. The tarsi of the two species hardly differ in length.

The Bar-winged Bittern is rare in collections. There is no specimen of it in the British Museum. Our figure is taken from a fine skin belonging to Mr. Alexander Fry, to whom we owe our best thanks for the loan of it. It was obtained by him during his residence at Rio de Janeiro, in the vicinity of that city. The bird is represented at half its natural size.

MAY, 1869.



J. Smit. lith.

M & N. Haerhart, imp.

TIGRISOMA FASCIATUM.

PLATE XCII.

TIGRISOMA FASCIATUM.

(BANDED TIGER-BITTERN).

<i>Ardea fasciata</i>	.	.	.	Such, Zool. Journ. ii. p. 117 (1825).
" "	.	.	.	Wagler, Isis, 1829, p. 662.
<i>Ardea lineata</i>	.	.	.	Max. Beitr. iv. p. 634 (1833).
" "	.	.	.	Schlegel, Mus. d. Pays-Bas, <i>Ardeæ</i> , p. 53.

Suprà æneo-nigricans, rufescente transfasciolatum: alis caudâque schistaceo-nigris albo terminatis, et, præcipuè in pogoniis interioribus, fasciis interruptis albis transvittatis: mandibulâ nudâ, sed ad basin lineâ e plumis albis compositâ partim occupatâ: gulâ mediâ plumosâ, albâ, lateralitèr utrinque nudâ: cervice anticâ augustè albâ, obscuro ochraceo flammulatâ: abdomine ochraceo; hypochondriis et tectricibus alarum inferioribus nigricanti-schistaceis, albo transfasciatis: campterio et margine alari externo albis: rostro fusco-nigro, mandibulæ margine inferiore flavido: pedibus nigricantibus: long. totâ 27·0, alæ 13·0, caudæ 5·3, rostri a rictu 4·8; tarsi 3·6; digiti medii cum ungue 3·0. *Avis hornotina*, suprà cinnamomeo-rufa, nigro transfasciata; subtùs albescens cinnamomeo tineta, et nigro minùs confertim transfasciata, gulâ et ventre medio immaculatis.

Hab. In Brasiliâ orient. merid.

In general habit, as Wagler has already observed, this Tiger-bittern is closely allied to the well-known *Tigrisoma brasiliense*, of tropical America; but, besides the conspicuous difference of the adult plumage, there is a well-marked structural character, which renders it easily recognizable in every age and sex. This is a small patch of feathers which occupies the basal portion of the otherwise naked mandible, and advances forwards beyond the gape. Immediately below this patch lies the naked space which borders the throat on each side, and which leaves only a narrow median line covered by feathers. In *T. brasiliense* the lateral portions of the throat are likewise bare and the middle portion feathered. But in the latter species the whole of the side of the mandible is denuded of feathers up to and even beyond, the gape; so that the bare portion of the mandible is perfectly continuous with the denuded space on either side of the throat.

In the adult dress these two Tiger-bitterns are likewise very easily distinguishable in plumage, the present species shewing no trace whatever of the rich chestnut head and neck of *T. brasiliense*. The transverse markings of the upper plumage in the present bird are also coarser and further apart.

The immature dress of *T. fasciatum* is very like that of its well-known ally, as figured in the Planches Enluminées of Buffon (No. 790) under the name "L'Honoré de Cayenne," but, judging from the single specimen before us, is rather blacker above, and may at all events be

always distinguished by the feathered patch on the base of the mandible, which we have already spoken of.

The earliest notice we have been able to find to this species, is that given by Dr. George Such in the fifth number of the Zoological Journal, published in April, 1825. Dr. Such's description is not very complete, but we have little doubt that it was intended for this bird, and there can be no question that this is the species to which Wagler has applied Dr. Such's name. In his "Contributions to the Natural History of Brazil" Prince Max. appears to have described the present bird as *Ardea lineata*—a name established by Gmelin upon Buffon's Planche Enluminée No. 860, and which is therefore merely a synonym of *Tigrisoma brasiliense*. Prof. Schlegel has proposed to follow this nomenclature, which, however, we cannot agree to, more especially as Dr. Such's appellation has a priority of some years.

In its mode of life, Prince Max. tells us, this Tiger-bittern much resembles the European *Botaurus stellaris*, but is not quite so shy; being not unfrequently observed in marshy districts within a few hundred feet of human habitations.

For the loan of the beautiful specimens of this species, from which our figures have been taken, we are again indebted to the liberality of Mr. Alexander Fry. As was the case with *Botaurus pinnatus* his examples of this Bittern were likewise obtained in the vicinity of the Brazilian capital.

We should mention that our front figure, which is half the size of life, represents an individual not quite mature. In the perfectly adult bird the transverse markings on the head and neck are less apparent, and the tail-bands probably wholly disappear. There is a single adult mounted specimen of this bird in the Gallery of the British Museum, but it bears no locality attached to it.

The three American species of Tiger-bitterns may be shortly distinguished as follows:—

A. Species gulâ mediâ plumosâ, lateralitèr nudâ.

1. TIGRISOMA BRASILIENSE.

Ardea brasiliensis, Linn. S. N. p. 239: Burm. Syst. Ueb. iii. p. 410. *Tigrisoma brasiliense*, Cab. in Schomb. Guian. iii. p. 754: ScL. P.Z.S. 1857, p. 268, et 1860, p. 72: Lawr. Ann. Lyc. N. Y. vii. p. 301: ScL. & Salv. P.Z.S. 1867, p. 979: Léotaud, Ois de Trin. p. 426. *Ardea lineata*, Gm. S. N. p. 638 (ex Buff. Pl. Enl. 860). *Ardea soco*, Wagl. Syst. Av. *Ardea*, sp. 30. *Ardea tigrina*, Gm. S. N. i. p. 637 (ex Buff. Pl. Enl. 790): Wagl. Syst. Av. *Ardea*, sp. 30a: Tsch. F. P. Aves, p. 50: Burm. Syst. Ueb. iii. p. 409. *Tigrisoma tigrinum*, Cab. in Schomb. Guian. iii. p. 753; ScL. P.Z.S. 1857, p. 268, 1858 p. 461, et 1860, p. 290.

Diagn. Mandibulâ ad basin nudâ: pileo colloque supero castaneis.

Hab. Cayenne (*Buffon*); Guiana (*Schomburgk*): Upper Amazon (*Hauswell*): E. Peru (*Tschudi*): Western Ecuador (*Fraser*): Trinidad (*Léotaud*): Panama (*McLeannan*).

2. TIGRISOMA FASCIATUM, tab. XCII. p. 183.

Diagn. Mandibulâ ad basin partim plumosâ: pileo colloque supero æneo-nigricantibus.

Hab. South Eastern Brazil (*Such*, *Max.*, *Fry*).

B. Species gulâ omnino nudâ.

3. TIGRISOMA CABANISI, tab. XLVIII. p. 95.

Hab. Central America, from Southern Mexico to Veragua.*

* Arcé has recently transmitted a skin of this species from Veragua, thus defining its probable southern limit.

Ex. Orn.

Plate XCIII.



J. Smit lith.

THRIPADECTES FLAMMULATUS.

M & N. Haubart imp

PLATE XCIII.

THRIPADECTES FLAMMULATUS.

(STRIPED BUSH-HOPPER).

<i>Anabates flammulatus</i>	. . .	Eyton, Contr. to Orn. 1849, p. 131.
" "	. . .	Sclater, P.Z.S. 1855, p. 141.
<i>Thripadectes flammulatus</i>	. . .	Sclater, Cat. A. B. p. 157.

Fusco-niger, plumis omnibus strigâ latâ lineari pallidè fulvâ scapam occupante ornatis: alis extûs et dorso postico rufis: tectricibus supra-caudalibus cum caudâ totâ rubiginoso-rufis; subalaribus cinnamomeis: rostro nigro: pedibus corneis: long. totâ 4·8, alæ 3·8, caudæ rectr. med. 4·2, ext. 2·7, tarsi 1·2, rostri a rictu 1·0.

Hab. in Novâ Granadâ interiore.

The generic name *Anabates* was first propounded by Temminck in 1820, in the "Analyse du Systeme Général d'Ornithologie" attached to the second edition of his well-known Manual of Ornithology, and has been very generally applied to the group of birds to which the species we now figure belongs. It unfortunately happens, however, that Temminck has given as the type of his genus the *Motacilla guianensis* of Gmelin,* which, as Messrs. Cabanis and Heine have shewn, is a species of *Synallaxis*.† Under these circumstances *Anabates* can be correctly regarded only as a useless synonym of *Synallaxis*, and the name *Philydor* of Spix, being the next oldest in point of date, must take its place.

The present bird, although agreeing with *Philydor* and its allies in general structure, and obviously belonging to the same group, stands very much apart from every other known species. Its short stout bill with the culmen strongly incurved is wider at the base and less compressed laterally than is usual in this group. Mr. Eyton states that in this part of its structure it resembles *Anabates cristatus*, Spix, the type of the genus *Homorus*. But in the present species the bill is much shorter and more robust than in the last-named bird, and the form of the nostrils is essentially different. In *Homorus* the nasal aperture is long and lineiform, and not depressed below the surface of the bill; in the present species it is oval and sunk in a shallow sulcus. We cannot therefore refer our bird to *Homorus*, nor to any other recognised division of the group, and must continue Sclater's practice of placing it as the type of an independent genus.

The wings of *Thripadectes* are short and rounded as in most forms of the group, the fifth and sixth primaries being nearly equal and longest and the first more than an inch shorter. The tail is likewise much graduated, the medial rectrices being $1\frac{1}{2}$ in. shorter than the external

* Founded on Buffon's Pl. Enl. 686, fig. 2.

† Mus. Hein. ii. p. 27.

pair. On the whole we are inclined to think this bird approaches more nearly to *Anabazenops* than to any other form of the group.

All specimens of *Thripadectes* that have yet come under notice have been "Bogota" skins, but whether they have been collected in the highlands or lowlands of the Columbian Republic we are unable to state. Mr. Eyton's type is in his own collection, but he likewise speaks of two specimens being in the Derby Museum. Our figure is taken from a skin in Selater's cabinet. There is likewise an example in the collection of Salvin and Godman.

MAY, 1869.



PLATE XCIV.

ICTERUS ABEILLÆI.

(BLACK-SIDED HANG-NEST).

<i>Xanthornus abeillei</i>	. . .	Lesson, Rev. Zool. 1839, p. 101.
<i>Icterus abeillei</i>	. . .	Sclater, P.Z.S. 1860, p. 252, et 1864, p. 175: Cat. Am. Birds, p. 130.
<i>Pendulinus abeillei</i>	. . .	Bp. Consp. I. p. 433, et C. R. xxxvii. p. 834.
" "	. . .	Baird, Birds N. Am. p. 550.
<i>Hyphantes abeillei</i>	. . .	Cassin, Proc. Ac. Phil. 1867, p. 62.

Suprà nigerrimus; superciliis curtis aureis; tectricibus alarum majoribus in pogonio exteriore et remigum marginibus extus et intus albis: subtus aureo-flavus, gulâ mediâ et lateribus totis nigris: caudâ flavâ, rectricibus quatuor mediis ferè omninò nigris, ceterorum apicibus nigro terminatis; subalaribus flavis: rostro nigro; pedibus obscure plumbeis: long. totâ 7·5, alæ 4·0, caudæ 3·4. *Fem.* Suprà olivaceo-flava, interscapulio et alis extus nigricantibus, his albo bifasciatis et limbatis: subtus flavescens, ventre medio et subalaribus griseo-albicantibus: caudâ olivaceo-flavâ versus apicem grisescente.

Hab. in reipublicâ Mexicanæ regione elevatâ.

This well-marked *Icterus* was first made known to science by the late French naturalist René Primivers Lesson. This writer, although not a very high authority on Ornithology, published descriptions of many rare birds, principally from the collection of the late Dr. Abeillé of Bordeaux, to whose memory he dedicated the present species. Several recent authors have since attempted to identify it with the *Oriolus costotoll* of Gmelin, founded upon an old description of Hernandez, which, however, it is not possible to determine satisfactorily.

The Black-sided Hang-nest, as we propose to term it from one of its most characteristic features, is closely allied in structure to the *Icterus bullockii* of Swainson, with which, indeed, some authorities have erroneously stated it to be identical. The males of these birds when in full plumage are, however, conspicuously different; the present species being at once distinguishable by its black rump and upper tail coverts, and the black sides of the body below. The young male, of which there is a specimen in Slater's collection, is also recognisable as soon as the black feathers of the flanks commence to appear. But the only specimen of the female we have seen, which is in the collection of Mr. H. S. le Strange, is barely distinguishable from the corresponding sex of the allied species. These two birds along with the well-known "Baltimore Oriole" of North America (*Icterus baltimore*) form a natural group of the genus *Icterus*, to which the name *Hyphantes* has been applied.

Prof. Baird has given "California" as a locality for this bird, probably from a misinterpretation of Bonaparte's remark in the "Comptes Rendus" concerning *Icterus bullockii*. But

the only country from which we have seen specimens of it is the "tierra fria" of Central and Southern Mexico, M. Boucard obtained examples of it, near Orizava, and Mr. G. H. White in the vicinity of the City of Mexico, as already recorded by Selater. In a collection of birdskins from the latter district, which has recently been submitted to our examination by Mr. H. S. le Strange, late of the British Legation in Mexico, is a fine pair of this species which, as that gentleman tells us, were brought to him alive, and were kept for some time in an aviary. Mr. le Strange informs us that the Mexican name of this bird as *Calandria nicetera*, while Bullock's Hang-nest, of which he likewise procured examples, is called *Calandria nogalera*.

The three species of this section of the genus *Icterus* may be distinguished by the plumage of the adult males as follows:—

1. *ICTERUS BALTIMORE*.

Oriolus baltimore, Linn. *Icterus baltimore*, Daud. Trait. d'Orn. ii. p. 348: Baird B.N.A. p. 548.

Diagn. Capite toto cum gulâ nigris: uropygio flavo.

Hab. Atlantic States of N. America; Mexico: Guatemala, Costa Rica: Veragua: Panama.

2. *ICTERUS BULLOCKI*.

Xanthornus bullockii, Sw. Phil. Mag. 1827, i. p. 436: *Icterus bullockii*, Bp.: Baird B.N.A. p. 549.

Diagn. Pileo nigro, superciliis elongatis et uropygio flavis.

Hab. Pacific States of N. America: Mexico.

3. *ICTERUS ABEILLÆI*, tab. xciv.

Diagn. Pileo et corpore toto suprâ nigris: superciliis curtis flavis.

Hab. Table-land of Mexico.

MAY, 1869.



$\frac{1}{2}$

CENTROPELMA MICROPTERUM.

(LITTLE-WINGED GREBE).

Podiceps micropterus Gould, P.Z.S. 1868, p. 220.

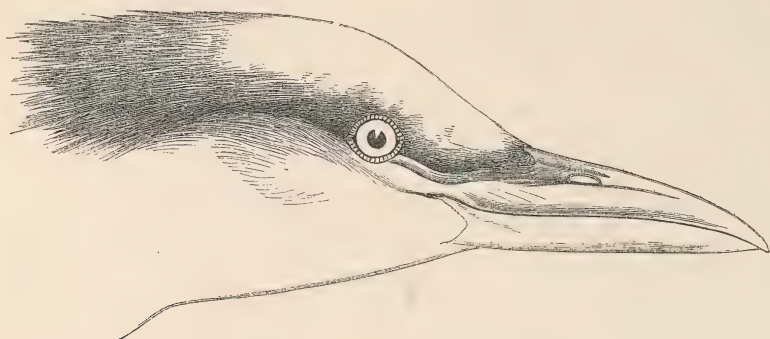
Suprà fusco-nigricans, plumis medialiter obscurioribus: cristâ capitis elongatâ et collo postico castaneis, plumarum apicibus fusciscentibus: alis extûs nigricantibus, secundariorum apicibus angustis et pogoniis interioribus totis albis: subtûs sericeo-album, fusco et rufescente perfusum, gulâ et collo antico purè albis: hypochondriorum et uropygii plumis ad basin albis, nigro terminatis et castaneo mixtis: tectricibus subalaribus albis: rostro, elongato, incurvo, crassiusculo, rubricanti-corneo; mandibulâ flavicante: tarsi scutellis posterioribus longè eminentibus et spinosis: long. totâ 15·0, alæ 4·5, tarsi 2·0, rostri a rictu 1·9, digiti externi cum ungue 2·8, medii 2·6, int. 2·1.

Hab. in lacu Titicacâ, Amer. merid.

This very remarkable Grebe was discovered by Mr. David Forbes, F.R.S., on the Lake of Titicaca some years ago, and described by Mr. Gould at a meeting of the Zoological Society of London on the 26th of March, 1868. It was referred by Mr. Gould to *Podiceps*, but presents so many points of distinction from the known members of that group, that we have thought it right to remove it to a new genus.

Mr. Forbes has favoured us with the following note on this bird.

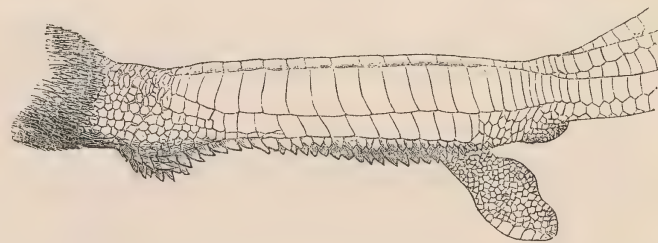
"I found this Grebe in great numbers on Lake Titicaca—especially on the lower portion or Lake of Huaqui—it is seen in large flocks of three or four hundred each. On the 17th of May, 1862, when on the island of Piriti, I shot several specimens, amongst which were those brought home to this country. The Aymaras call the bird '*Quinocaya*.' Its skin is much valued by the Bolivians and used for saddle-cloths—seven skins making one saddle-cloth. The bird is said to breed among the Tortoras—or large reeds, which abound in the lake."



The general size of this bird is rather less than that of the well-known *Podiceps cristatus* of Europe. The bill is rather shorter than in that species, less compressed, and generally broader throughout, particularly at the sides of the base of the upper mandible. These project considerably and leave a distinct groove between themselves and the gonys, in the interior extremity of which the nasal openings are placed. The nostrils are thus situated relatively much farther forward than in typical *Podiceps*. The commissure, instead of being straight as in *P. cristatus*, is much incurved in the terminal portion of the bill.

The wings of this Grebe, although perfectly formed, are remarkably diminutive, so as to render the specific name which Mr. Gould has bestowed upon it particularly apposite. Although, as we have already said, the bird is nearly of the size of *P. cristatus*, the wings are hardly larger

than those of our common Dabchick (*Sylbeocyclus minor*), and can hardly, we should think, be available for flight. The second and third primaries slightly exceed the first in length, and are the longest in the wing.



The tarsus of this Grebe is considerably shorter than the middle toe without the nail. As in all species of the genus, it is excessively compressed, and terminates posteriorly in a double series of scales, which, however, are much more prominent than in any other Grebe we are acquainted with, so as to constitute two rows of projecting spines, which run up the back of the tarsus and are particularly well developed at the proximal extremity. This striking peculiarity has induced us to bestow upon the bird the generic name *Centropelma*.* A somewhat similar formation occurs in the common Dabchick, but does not attain the same degree of development.

Our figure of the Grebe is taken from the same specimen as that described by Mr. Gould, which is now in Salvin and Godman's collection. The only other individual we have met with, which is in the Gallery of the British Museum, was also obtained by Mr. Forbes on Lake Titicaca. The species is, in all probability, exclusively confined to this enormous Alpine lake, which is situated among the Bolivian and Peruvian Andes at an elevation of upwards of 12,800 feet above the level of the sea.

Mr. Coues has lately published a synopsis of the North American *Podicipinæ*.† The South American species of this group with which we are acquainted are, besides the present, only four: namely—

1. *PODICEPS MAJOR*.

Grebe de Cayenne, Buff. Pl. Enl. 404, f. i. (undè), *Colymbus major*, Bodd.: *Colymbus cayennensis*, Gm. S. N. ii. p. 593. *Macas cornudo*, Azara, Apunt. iii. p. 457, No. 443. *Podiceps bicornis*, Licht. Doubl. p. 88: Hartl. Ind. Az. p. 28: Burm. La Plata-Reise ii. p. 520: "*Podiceps americanus*," Garnot, Mus. Paris. *Podiceps chilensis*, Garnot, Zool. Voy. Coq. i. p. 601: Darwin, Zool. Voy. Beagle, iii. p. 137. *Podiceps leucopterus*, King, Zool. Journ. ii. p. 101: Jard. et Selb. Ill. Orn. t. 107: Hartl. Naum. 1853, p. 218. *Podiceps albicollis*, Less. Trait. p. 594.
Hab. Cayenne (*Buff.*): Brazil, Rio Grande (*Mus. Paris*): Monte Video (*Mus. Berol.*): Paraguay (*Azara*): Magellan's Straits (*King*): Chili (*Garnot*).

2. *PODICEPS CALIPAREUS*.

Podiceps calipareus, Less. Voy. Coq. Zool. p. 727, t. 45. Darwin, Zool. Beagle, iii. p. 136: Hartl. Naum. 1853, p. 218: Tsch. F. P. Aves, p. 315: Sci. P.Z.S. 1860, p. 389: Abbott, Ibis, 1861, p. 162: Sci. et Salv. P.Z.S. 1869, p. 158.
Hab. Chili: Bolivia, Potosi, (*d'Orb.*) coasts of Southern Peru (*Tschudi*): Interior of Peru, Tinta (*Whitely*): Falkland Isl. (*Abbott*): Patagonia (*Darwin*).

3. *PODICEPS ROLLANDI*.

Podiceps rollandi, Q. et G. Voy. Uranie, Zool. p. 133, t. 36: Darwin, Voy. Beagle, iii. p. 137: Hartl. Naum. 1853, p. 218: Sci. P.Z.S. 1860, p. 389: Abbott, Ibis, 1861, p. 162: Sci. et Salv. P.Z.S. 1868, p. 146; et 1869, p. 158.
Hab. Falkland Islands (*Darwin, Abbott*): Argentine Rep. (*Hudson*): Chili (*Hartlaub*): Int. of Peru (*Whitely*).

4. *SYLBEOCYCLUS DOMINICUS*.

Colymbus dominicus, Linn. S. N. i. p. 223. Max. Beitr. iv. p. 835: Spix Av. Bras. ii. p. 78, t. 101. *Macas menor*, Azara, Ap. iii. p. 467, No. 445. *Podiceps dominicus*, Hartl. Ind. Az. p. 28: Licht. Doubl. p. 87: Gosse, Birds of Jam. p. 440: Sci. P.Z.S. 1857, p. 207, 1859, p. 369: Sallé P.Z.S. 1857, p. 237: Cab. in Schomb. Guian. iii. p. 765. Sci. et Salv. Ibis, 1860, p. 278: Taylor, Ibis, 1860, p. 317: Lawr. Ann. Lyc. N. Y. vii. p. 334: Sci. et Salv. P.Z.S. 1864, p. 373: Gundlach, Rep. F. N. i. p. 386. *Sylbeocyclus dominicus*, Coues, Pr. Ac. Phil. 1862, p. 232.
Hab. Mexico (*Sallé*): Cuba (*Gundl.*): Jamaica (*Gosse*): San Domingo (*Sallé*): Guatemala (*Salvin*): Honduras (*Taylor*): Veragua (*Arce*): Panama (*McLeannan*): Caraccas (*Levrard*): Brazil (*Spix, Max.*): Paraguay (*Azara*).

* Κέντρον *spina* et πέλμα *planta pedis*.

† Proc. Acad. Sc. Phil. 1862, p. 226, et p. 404.



PLATE XCVI.

CENTRITES OREAS.

(ANDEAN CENTRITES).

<i>Anthus fulvus</i>	.	.	.	d'Orb. Voy. Ois. p. 223 (partim).
<i>Centrites niger</i>	.	.	.	Scl. et Salv. P.Z.S. 1867, p. 987, et 1868, p. 569.
<i>Centrites oreas</i>	.	.	.	Scl. et Salv. P.Z.S. 1869, p. 154.

Niger: dorso castaneo: remigum primariorum pogoniis internis albicantibus: long. totâ 5.5, alæ 3.2, caudæ 2.0.
Fem. Fusca: dorso luridè castaneo: primariis, sicut in mari, albicantibus, sed cinnamomeo tinctis.
Hab. In montibus elevatis Peruviae et Boliviae.

When we first received specimens of this bird in one of Mr. Henry Whitely's recent collections from Western Peru, we failed to detect its distinctness from the well-known *Centrites niger* of Patagonia and the Argentine republic. At first sight, indeed, these differences are not very apparent, and d'Orbigny before us had united the two birds under one name. But the receipt of additional specimens in one of Mr. Whitely's subsequent collections having induced us to look more closely into the matter, we discovered certain constant differences between them, and thereupon described the present species under the name *Centrites oreas* from its mountain habitat.

Centrites oreas, as we shall now show, differs from *Centrites niger* in two very noticeable characters. In the first place it has the inner webs of the primaries dull white for the greater portion of their length, passing, however, into brownish-black at their extremities. The outer webs of the primaries are also much less deeply coloured than in *C. niger*, in which the whole wing, both externally and internally, is of an uniform deep black. This whitish colouring of the inner webs of the wing feathers is also found in the female of *C. oreas*: in the female of *C. niger*, according to our specimens, the primaries are tinged with pale fulvous. A second very obvious difference is in the colour of the back, which in the present bird is of a much duller hue, and less tinged with chestnut than in *C. niger*. We have therefore little doubt that the two species should be considered as distinct, and as representatives of each other in different areas: the one occupying the low plains of the whole southern portion of the South American continent, the other taking its place in the highlands of Peru and Bolivia.

D'Orbigny's notes, which apply as well to this species and its ally, state that it is generally met with in small flocks composed of a small number of males and many females or young birds, and is usually found on well-watered plains or on the banks of brooks and rivers. Like the Larks (*Alauda*), which it much resembles in habit, it seems to prefer beaten tracks and pathways, and may be frequently noticed running rapidly in such spots or stalking gravely along in search

of the small worms and seeds which constitute the food. It is rather bold, taking but little notice of any one approaching it, and was never seen to perch on a tree.

To Dr. Cabanis is due the credit of first referring this somewhat isolated genus of birds to its correct position in the natural series. Swainson associated it with the Motacillinae, and Lafresnaye and d'Orbigny classed it as an *Anthus*. But there can be no doubt that, as shewn by Cabanis, the proper place for the genus *Centrites* is the next to *Muscisaxicola* in the family *Tyrannidae*, from which it is easily distinguishable by the Lark-like elongation of the hind claw.

Our figures of this species are taken from two specimens, male and female, in Sclater's collection, which were collected by Mr. H. Whitely at Tinta, in the highlands of Peru, in May and June, 1868.

MAY, 1869.



PLATE XCVII.

GALLINAGO IMPERIALIS.

(IMPERIAL SNIPE).

Gallinago imperialis Sel. et. Salv. P. Z. S. 1869, p. 419.

Suprà saturatè rufa, nigro variegata et transfasciata, facie paulo dilutiore, remigibus primariis nigricantibus, secundariis extus dorso concoloribus; subtus gutture toto ad medium pectus nigro et rufo variegato; abdomine albo nigroque regulariter transfasciato, caudâ brevi, a tectricibus superioribus copertâ, nigricante unicolore; tectricibus subalaribus nigricantibus, fasciis paucis obscuris albis; tarsis brevibus, robustis, tibiis ferè omnino plumis obtectis: long. totâ 11·0, alæ 6·0, caudæ 1·5, tarsi 1·2, digiti medii cum ungue 1·7, rostri a rictu 3·3.

Hab. in Novâ Granadâ interiore.

We have lately described this singular bird from a specimen purchased by Salvin some time ago of a dealer in London along with a number of other birds received direct from Bogota. It should be mentioned that the specimen was not prepared after the usual well-known fashion of "Bogota" skins, having been roughly mounted. But the dealer stated that his correspondent in New Granada had called his attention to the bird as being something rare, and that there could be no doubt as to its origin.

Notwithstanding this statement, we were at first sight inclined to think that the bird might be *Scolopax saturata* of Java, which it somewhat resembles in general coloration, and that an error had been made about the locality. This point was soon settled in the negative, by reference to the original type-specimen of Horsfield. *Scolopax saturata* possesses the characteristic white terminations of the rectrices, and the cross patches on the back of the head, which distinguish the veritable Woodcocks (*Scolopax*). There can be no question, however, that our bird shews considerable *rapprochement* towards true *Scolopax*, though we think it best to keep it within the limits of *Gallinago*, its nearest structural allies being *G. stricklandi* and *G. jamesoni*, both of which have short robust tarsi, and the tibiæ feathered, as in the present species, nearly down to the tarsal joint. The wings of our single specimen of this bird are not in very perfect condition, but, as far as we can tell, the third and fourth primaries would be rather longer than the first and second, and longest. The secondaries, as in all Snipes, are very long, and in the present bird quite reach to the points of the primaries when the wing is closed. The tail-feathers are likewise deficient, only three of them remaining *in situ*. These shew no traces of transverse markings whatever, in which respect this bird is more like true *Scolopax* than *Gallinago*. But there are likewise no traces of the white terminations of the tail-feathers, which are so conspicuous in the Woodcocks.

Our figure of this bird is taken from the typical specimen in the collection of Salvin and Godman, which at present remains unique.

We are acquainted with nine American species of Snipes, which may be separated into three groups as follows:—

- a.* Species tibiæ parte extremâ denudatâ.
- | | |
|-------------------------------------|-----------------------|
| <i>a'</i> rectrice extimâ integrâ | 1. <i>wilsoni</i> . |
| | 2. <i>paraguayæ</i> . |
| | 3. <i>frenata</i> . |
| <i>b'</i> rectrice extimâ angustatâ | 4. <i>nobilis</i> . |
| | 5. <i>undulata</i> . |
| | 6. <i>gigantea</i> . |
- b.* Species tibiis fere omnino vestitis
- | | |
|--|-------------------------|
| | 7. <i>stricklandi</i> . |
| | 8. <i>jamesoni</i> . |
| | 9. <i>imperialis</i> . |

JULY, 1869.

Ex Orn

Plate XCVIII



J. Smit lith.

CALLINAGO NOBILIS.

M. & N. Hanhart imp.

PLATE XCVIII.

GALLINAGO NOBILIS.

(NOBLE SNIPE).

- | | | | | | |
|------------------------------|---|---|---|---|---|
| <i>Gallinago nobilis</i> | . | . | . | . | Scl. P. Z. S. 1856, p. 31. |
| " | " | . | . | . | Schlegel, Mus. d. P. B. <i>Scolopaces</i> , p. 9. |
| <i>Gallinago granadensis</i> | . | . | . | . | Bp. Mus. Brit. et C. R. xliii. p. 579 (1856). |

Supra fusca, nigro et rufo (sicùt in plerisque hujus generis speciebus) variegata: pileo summo nigro, vittâ mediali irregulari rufâ: alis cineraceo-nigris, tectricum marginibus angustis albis: subtùs, gutture albicante, pectore toto cinnamomescenti-brunneo, nigricante flammulato; ventre albo, lateribus nigricante transfasciatis; crisso cinnamomeo-rufo, nigro variegato: caudæ rectricibus sedecem; harum octo mediis nigris, claro rufo latè terminatis, hoc colore iterum sub margine angustè nigro vittato; unâ utrinque proximâ præcedentibus assimili, sed colore nigro ochracecente maculato et terminatione rufâ non æquè latâ; tribus autem utrinque extimis ochracecentibus nigro irregulariter transvittatis: subalaribus obscurè cinereis albo transfasciatis: rostro longissimo, obscurè corneo, apice nigricante; pedibus obscurè corylinis: long. totâ 12·0, alæ 5·7, caudæ 2·4, rostri a rictu 3·7, tarsi 1·6, digiti medii cum ungue 1·9.

Hab. in Novâ Granadâ interiore.

This Snipe was originally described by Sclater in 1856, from specimens received in Bogota collections. Since that period we have met with many examples of it from the same locality, but have received no information of its occurrence in any other part of America. We conclude, therefore, that its range is confined to the high plateau of the Columbian Andes, in which the New Granadian capital is situated. Several travellers have noticed the occurrence of a large Snipe in this district, and we have little doubt that this must be the species referred to. Prince Bonaparte seems at one time to have bestowed the MS. name *granadensis* upon this bird, but in his "Tableau" of the Order of Waders has merely used this term as a synonym of Sclater's already-published appellation. The chief distinguishing peculiarity of this Snipe is, as already remarked by Schlegel, the great length of the beak in comparison with the size of the bird. In his original description, Sclater has spoken of its bulk as being about equal to that of *Gallinago gigantea*, but this is decidedly an error, the present bird being more nearly of the size of our Double Snipe (*G. major*). *G. gigantea*, of which Temminck's plate gives but a very imperfect idea, is very much larger, the body alone measuring fully eleven inches in length.

The three outer pairs of rectrices of the present bird are considerably narrower than the remaining pairs, but the outer pair are not nearly so attenuated as in *G. paraguayæ* and *G. frenata*.

Our figure is taken from the same specimen (now in Salvin and Godman's collection) that furnished the subject of Sclater's original description.

The other eight American species of this genus known to us are the following:—

1. GALLINAGO WILSONI.

Scolopax wilsoni, Temm. Pl. Col. v. (text): *Gallinago wilsoni*, Cassin in Baird's Birds N. Am. p. 710: Dresser, Ibis, 1866, p. 36: Sci. and Salv. Ibis, 1859, p. 228 et P.Z.S. 1864, p. 372; Selater, P.Z.S. 1864, p. 178: Salvin, Ibis, 1866, p. 205.

Hab. Whole of North America (Cassin): Texas (Dresser): Mexico (White): Guatemala (Salvin): Veragua (Arce): Panama (McLeannan).

This is the only true Snipe yet met with in America north of Panama. It is at once distinguishable from every other species of the New World by the external pair of tail-feathers, which are not attenuated, but of the ordinary form, as in the European species *G. major* and *G. scolopacina*.

2. GALLINAGO PARAGUAYÆ.

Becassina prima, Azara, Apunt. iii. p. 271, no. 387. *Scolopax paraguayæ*, Vieill N. D. iii. p. 131, et Enc. Méth. p. 1160: Hartl. Ind. Az. p. 24: Darwin, Zool. Voy. Beagle, iii. p. 131. *Gallinago paraguayæ*, Schlegel, Mus. de P. B. *Scolopaces*, p. 11: Selater, P.Z.S. 1867, p. 332: Sci. et Salv. P.Z.S. 1868, p. 144.

Hab. Paraguay (Azara): Chili (Leybold): Bolivia (Bridges in Mus. S.-G.)

We are not yet quite satisfied as to the distinctness of this and the next species, but at present follow Darwin and Schlegel in keeping them apart. The differences appear to consist in the larger size, longer wings, and narrower and more pointed outer rectrices of the present bird.

3. GALLINAGO FRENATA.

Becassina secunda, Azara, Apunt. iii. p. 275, no. 388. *Scolopax frenata*, Max, Beitr. iv. p. 712: Cab. in Tsch. F. P. p. 299: Cab. in Schomb. Guian. iii. p. 758: Burm. Syst. Ueb. iii. p. 377, et La Plata-Reise, ii. p. 583. *Scolopax magellanicus*, King, Zool. Journ. iv. p. 93: *Scolopax (Telmatias) magellanicus*, Gould, Zool. Beagle, iii. p. 131. *Gallinago magellanica*, Sci. P.Z.S. 1860, p. 387. *Scolopax brasiliensis*, Sw. F. B. Am. p. 400. *Gallinago frenata*, Schlegel, Mus. de P. B. *Scolopaces*, p. 9: Sci. et Salv. P.Z.S. 1869, p. 156.

Hab. Guiana (Schomburgk): S. E. Brazil (Max et Burmeister): E. Peru (Tsch.): Paraguay (Azara): La Plata (Burm.): Uruguay (Darwin): Falkland Islands (Packer).

In one of our articles upon Mr. Hudson's birds (P.Z.S. 1863, p. 144) we have remarked that *Scolopax frenata* of Lichtenstein (Doubl. p. 75) is based upon Azara's *Becassina prima*, and is therefore merely a synonym of *Scolopax paraguayæ* of Vieillot. This is certainly the case if we take Lichtenstein's reference to Azara (No. 387) as literally correct. But as Lichtenstein gives no description of *S. frenata*, we may also adopt the view that this name of Illiger was first properly characterized by Prince Max, and is therefore to be applied to the present species, if distinct from the preceding.

4. GALLINAGO NOBILIS—(tab. xeviii.).

Hab. Int. of New Granada.

5. GALLINAGO UNDULATA.

Becasse des Savannes de Cayenne, Buff. Pl. Enl. 895, undè *Scolopax undulata*, Bodd. *Scolopax paludosa*, Gm. S. N. i. p. 661: Cab. in Schomb. Guian. iii. p. 758. *Gallinago paludosa*, Schl. Mus. de P. B. *Scolopaces*, p. 8.

Hab. Cayenne.

6. GALLINAGO GIGANTEA.

Scolopax gigantea, Temm. Pl. Col. 403: Burm. Syst. Ueb. iii. p. 376. *Gallinago gigantea*, Schlegel, Mus. d. P. B. *Scolopaces*, p. 8. *Scolopax lacunosa*, Ill. in Mus. Berol.

Hab. Prov. of Goyaz, Brazil (Natterer).

The great size of this bird renders it quite unmistakable. One of Natterer's specimens (in Mus. S. & G.) has fourteen rectrices only, which is the number attributed by Schlegel (with some doubt) to this species.

7. GALLINAGO STRICKLANDI.

Gallinago stricklandi, G. R. Gray, Voy. Ereb. and Terror, t. 23, and Cat. Grallæ, p. 112. *Scolopax meridionalis*, Peale, Zool. U. S. Expl. Exp. Birds, p. 229; Cassin, ibid. ed. ii. p. 310, t. 35, f. 1: *Scolopax spectabilis*, Hartl. Naum. 1853, p. 216.

Hab. Tierra del Fuego, Hermit Isl. (Ant. Exp.): Orange Bay (Peale): Straits of Magellan (Lynn Museum): Valdivia (Philippi).

Schlegel has united this Snipe to *Gallinago undulata*, but it is certainly quite distinct, having the tarsi feathered down to the joint, and the body below very rufescent and much less strongly marked. Besides the type in the British Museum Salvin has examined a specimen in the Museum at King's Lynn. Dr. Finsch has kindly re-examined for us the type of *Scolopax spectabilis*, of Hartlaub, and agrees with us in considering it identical with *G. stricklandi*.

8. GALLINAGO JAMESONI.

Xylocotta jamesoni, Bp. C. R. xli. p. 660: *Gallinago* — ? Sci. P.Z.S. 1860, p. 82.

Hab. Ecuador, near Quito (Jameson); Panza, Chimborazo (Fraser).

We have a single specimen of this Snipe, killed by Fraser on the slope of Chimborazo, and agreeing tolerably well with Bonaparte's description. It belongs to the section with the tarsi nearly completely feathered, and is, we believe, quite a distinct species. It may be distinguished from the preceding by having the middle of the belly white, and by the strong cross markings on the flanks and crissum.

JULY, 1869.



2/3

QUERQUEDULA PUNA.

J. Smit lith.

M & N Harhart imp

PLATE XCIX.

QUERQUEDULA PUNA.

(PUNA DUCK).

Anas puna Tsch. Faun. Per. Aves, p. 309.
Querquedula puna Scl. et Salv. P.Z.S. 1869, p. 157.

Suprà pallidè fuscescenti-cinerea, fusco variegata, plumis medialitè obscurioribus; pileo toto et lineâ nuchali nigris; alis extùs fuscescenti-cinereis; tectricibus minoribus plumbeo tinctis, et margine lato albo terminatis: secundariis in pogonio externo æneo-viridibus, albo latè terminatis: subtùs ochraceo-alba, pectoris plumis fusco obsoletè guttatis; ventre toto et crisso nigricante minutè trans-radiolatis; tectricibus subalaribus et plumis axillaribus albis: rostro (in ave vivâ) cœruleo, culmine nigricante; pedibus cœrulescenti-schistaceis: long. totâ 18·0, alæ 8·5, caudæ 3, rostri a rictu 2·1, tarsi 1·3, dig. med. cum ungue 1·9.

The first examples of this fine Duck that attracted our notice were those in the gallery of the Jardin des Plantes at Paris, one of which is marked as having been obtained in the province of Cochabamba in Bolivia by d'Orbigny, and the other in Chili by M. Gay. The specimens were not named, and we were at first inclined to regard them as undescribed. Subsequently, however, we received Peruvian skins of the same bird from Mr. H. Whitely, and were thus induced to make a more accurate examination of it. This led to the discovery that it is the species described by Tschudi in his "Fauna Peruana" as *Anas puna*, from a specimen obtained by Philippi in the highlands of Peru, and transmitted to the Berlin Museum. We should add that Sclater has recently examined the typical example of *Anas puna* in that collection, and is convinced of its identity with that which we now figure.

Mr. Whitely obtained two examples of this Duck on the lagoon of Tungasuca, which is situated in the Andes south-east of Cusco, at an elevation of about 12,000 feet above the sea-level. The skins are both marked as "females," but the male would hardly differ, except, perhaps, in possessing rather brighter plumage. Mr. Whitely states that in the living bird the bill is light blue, with a streak of black down the centre of the upper mandible, the eye dark hazel, the legs and toes bluish slate-colour. He adds that he met with this Duck in pairs, but found it rather rare.

Querquedula puna is a very well-marked species, and can hardly be confounded with any other member of the family. It seems most nearly allied to *Q. versicolor*, but is readily distinguishable by its larger and uniformly coloured bill, blacker head, whiter throat, and by the finer markings above.

JULY, 1869.



PLATE C.

MERGANETTA TURNERI.

(TURNER'S TORRENT-DUCK).

<i>Merganetta leucogenys</i>	.	.	.	Sci. et Salv. P.Z.S. 1869, p. 157.
<i>Merganetta turneri</i>	.	.	.	Sci. et Salv. P.Z.S. 1869, Nov. 25th.

Suprà nigra, interseapulio et scapularibus rufo marginatis: capite colloque toto albis, lineâ rostrum cingente, pileo medio in strigam nuchalem producto et lineâ utrinque collum descendente nigerrimis: alis extûs cœrulescenti-cinereis; speculo alari æneo-viridi; tectricibus alarum et secundariis albo augustè terminatis: abdomine nigro, ventre medio fusco variegato: crisso et uropygio nigris, albo minutè vermiculatis: caudâ fuscescenti-cinereâ unicolore; tectricibus subalaribus cinereis: rostro et pedibus obscurè rubris: long. totâ 16·0, alæ 7·5, caudæ 5·0, rostri a rictu 1·5, tarsi 1·8, digiti medii cum ungue 2·3. *Fem.* Suprà cinerea, lateribus cervicis et uropygio albo nigroque minutè vermiculatis; dorso nigro flammulato; alis albo bifasciatis: speculo alari obscurè æneo-viridi; subtûs fulvo-rufa unicolor; long. totâ 16·0, alæ 6·4, caudæ 4·0, rostri a rictu 1·35.

Hab. In Andibus Peruviae meridionalis.

The pair of Torrent-Ducks which we now figure, were transmitted by Mr. H. Whitely in one of his collections from Tinta, a village situated about 11,000 feet above the sea-level in the highlands of Southern Peru, to the south-east of Cusco—the ancient Indian capital.

In our fourth article on Mr. Whitely's collections from this district, published in the "Proceedings" of the Zoological Society of London, we have referred this bird to the species described by Tschudi as *Merganetta leucogenys*. Having, however, more recently made a re-investigation of the group, we have convinced ourselves that Tschudi's bird is, as far as can be decided by his figure and description, inseparable from the *Merganetta columbiana* of New Granada, and that the present species must be regarded as undescribed, being equally distinct from the New Granadian form, and from the Chilian *Merganetta armata*. From the former it differs in its larger size, and black breast and flanks, which are only relieved by some brownish marks in the middle of the belly. In the New Granadian bird, which is well represented in Des Murs "Iconographie" (tab. vi.) the whole abdomen is white, sparingly striped with narrow blackish markings, and the bill is narrower and much less elevated than in this species. *Merganetta armata*, of which an excellent figure will be found in Gray and Mitchell's "Genera of Birds," resembles the present bird in having a black breast, but the edges of the scapularies are white instead of rufous, and the throat and fore neck are black, instead of being pure white as in its two northern allies. It would seem, therefore, that our new species occupies an intermediate position as regards the differential characters of the male, as in geographical range,

between the two known species. As regards the female, our specimen does not appear to differ in colour from the corresponding sex of *Merganetta armata* (Des Murs, Icon. t. xlviii). We are not yet acquainted with the female of *M. leucogenys*, but in all probability it would also bear a similar dress.

The male bird figured in the accompanying plate, was shot and skinned by Mr. Turner, a friend of Mr. Whitely's, near Tinta. We have, therefore, acceded to Mr. Whitely's request to call it, if new, after his friend's name. The female was obtained by Mr. Whitely himself in the same neighbourhood. Both these specimens are now in the collection of Salvin and Godman. Mr. Whitely sends us no notes as to the habits of this species, but, like the other members of this peculiar form, it is no doubt an inhabitant of the mountain-torrents of the higher Andean ranges, and is an excellent swimmer and diver.*

If the view we have adopted as to *M. leucogenys* of Tschudi be correct, the synonymy of the three known species of *Merganetta* will stand as follows:—

1. MERGANETTA ARMATA.

Merganetta armata, Gould, P.Z.S. 1841, p. 95: Des Murs, Icon. Orn. t. 48 (♀). Gray and Mitch. Gen. B. t. 170: Cassin, in Gilliss' Exp. ii. p. 204: Sci. P.Z.S. 1867, p. 340. *Raphipterus chilensis*, Gay, Faun. Chil. Aves, p. 459. *Merganetta chilensis*, Des Murs, Icon. Orn. t. 5 (♂).

Diagn. Gulâ et collo antico nigris: interscapulii plumis albo marginatis: abdomine nigro fusco variegato.

Hab. Andes of Chili.

2. MERGANETTA TURNERI. (Ex. Orn. t. c.)

Diagn. Gulâ et collo antico albis: interscapulii plumis rufo marginatis: abdomine nigro fusco variegato.

Hab. Andes of Southern Peru.

3. MERGANETTA LEUCOGENYS.

Anas leucogenys, Tsch. Wieg. Arch. 1843, p. 390. *Erismatura leucogenys*, Tsch. F. P. Aves, p. 311, t. xxxvi.

Merganetta columbiana, Des Murs, Rev. Zool. 1845, p. 179: Icon. Orn. t. 6.

Diagn. Gulâ et collo antico albis: interscapulii plumis rufo marginatis: abdomine albo fusco sparsim notato.

Hab. Andes of Central Peru (*Tschudi*): New Granada (*Goudot*).

* Cf. Bridges, P.Z.S. 1841, p. 95.

NOVEMBER, 1869.

INDEX.

Acanthylis
semicollaris, 103.
 Accipiter
bicolor, 137, 170, tab. lxix.
castanilius, 35, tab. xviii.
chilensis, 73, 137, 169, 170, tab.
 xxxvii.
chionogaster, 27, 33, tab. xiv.
collaris, 35.
cooperi, 73, 169, 170.
erythrocnemis, 25, 27, 33, 34, 137,
 tab. xvii.
fuscus, 33.
gundlachi, 169.
guttatus, 169, 170, tab. lxxxv.
nisus, 27.
pectoralis, 170.
pileatus, 37, 138, 173.
poliogaster, 73.
sexfasciatus, 137, 138.
striatus, 33.
ventralis, 25, tab. xiii.
 Acrocompsa
callophrys, 84, 135.
 Ampelion
arcuatus, 171, 172, tab. lxxxvi.
cucullatus, 172.
melanocephalus, 171.
 Ampelioides
flavitorques, 172.
 Ampelis
arcuatus, 171.
atropurpurea, 9.
cinctus, 172.
cineracea, 6.
cucullatus, 172.
hypopyrrha, 6.
melanocephala, 172.
purpurea, 9.
 Anabates
cristatus, 185.
 Anas
leucogenys, 200.
puna, 197.
flammulatus, 185.
 Anthus
fulvus, 191.
 Ardea
brasiliensis, 181, 184.
cabanisi, 95.
fasciata, 183.
lineata, 181, 183, 184.
pinnata, 181.
soco, 184.

Ardea
tigrina, 184.
 Astur
magnirostris, 173, 174, 175, 177.
palumbarius, 180.
pectoralis, 170.
pileatus, 170.
 Asturina
albicollis, 122.
ghiesbreghti, 121.
gularis, 177, 178.
leucorrhoa, 180.
magnirostris, 173, 180.
nattereri, 173, 175, 180, tab.
 lxxxvii.
nitida, 179, 180.
plagiata, 179, 180, tab. xc.
pucherani, 177, 178, 180, tab.
 lxxxix.
ruficauda, 175, 178, 180, tab.
 lxxxviii.
scotoptera, 122.
 Atlapetes
rubricatus, 127.
 Attagis
chimboraensis, 157, 158, tab. lxxix.
falklandica, 158.
gayi, 157, 158.
malouina, 158.
latreillei, 157, 158.
 Aulia
hypopyrrha, 6.
 Bataurus
lentiginosus, 181, 182.
pinnatus, 181, 182, 184, tab. xci.
stellaris, 95, 184.
 Bubo
nudipes, 102.
 Bucco
maculatus, 153.
radiatus, 153.
striatipectus, 153.
striolatus, 153, tab. lxxvii.
 Buteo
albicollis, 122.
ghiesbreghti, 121.
kaupi, 75.
melanops, 122.
melanotus, 122.
pæcilonotus, 122.
polionotus, 97.
scotopterus, 122.
 Capito
striolatus, 153.

Caprimulgus
æthereus, 40.
cornutus, 40.
grandis, 40.
jamaicensis, 40.
leucopterus, 40.
longicaudatus, 40.
rufus, 39.
 Cardinalis
igneus, 125.
phæniceus, 125, tab. lxiii.
virginianus, 125.
 Carpornis
cucullata, 172.
melanocephala, 172.
 Caryothraustes
brasiliensis, 168.
cayennensis, 167.
humeralis, 168.
episcopus, 168.
viridis, 167.
 Centropelma
micropterum, 189, tab. xcv.
 Centrites
oreas, 161, tab. xevi.
niger, 191.
 Cephalopterus
glabricollis, 63.
 Chætura
biscutata, 103.
brachycerca, 103.
cinereiventris, 103.
pelasgia, 103.
poliura, 103.
rutila, 103.
semicollaris, 103, tab. lii.
spinicauda, 103.
scateri, 103.
vauxi, 103.
zonaris, 103.
 Chamæospiza
torquata, 127.
 Charadrius
bistriatus, 60.
 Chasmorhynchus
tricarunculatus, 63.
 Chlorœnas
albilinea, 11.
 Chlorophonia
calophrys, 11, 84, 135, tab. lxxviii.
cyanodorsalis, 83, 84.
flavirostris, 84.
frontalis, 81, 84, tab. xli, fig. 1.

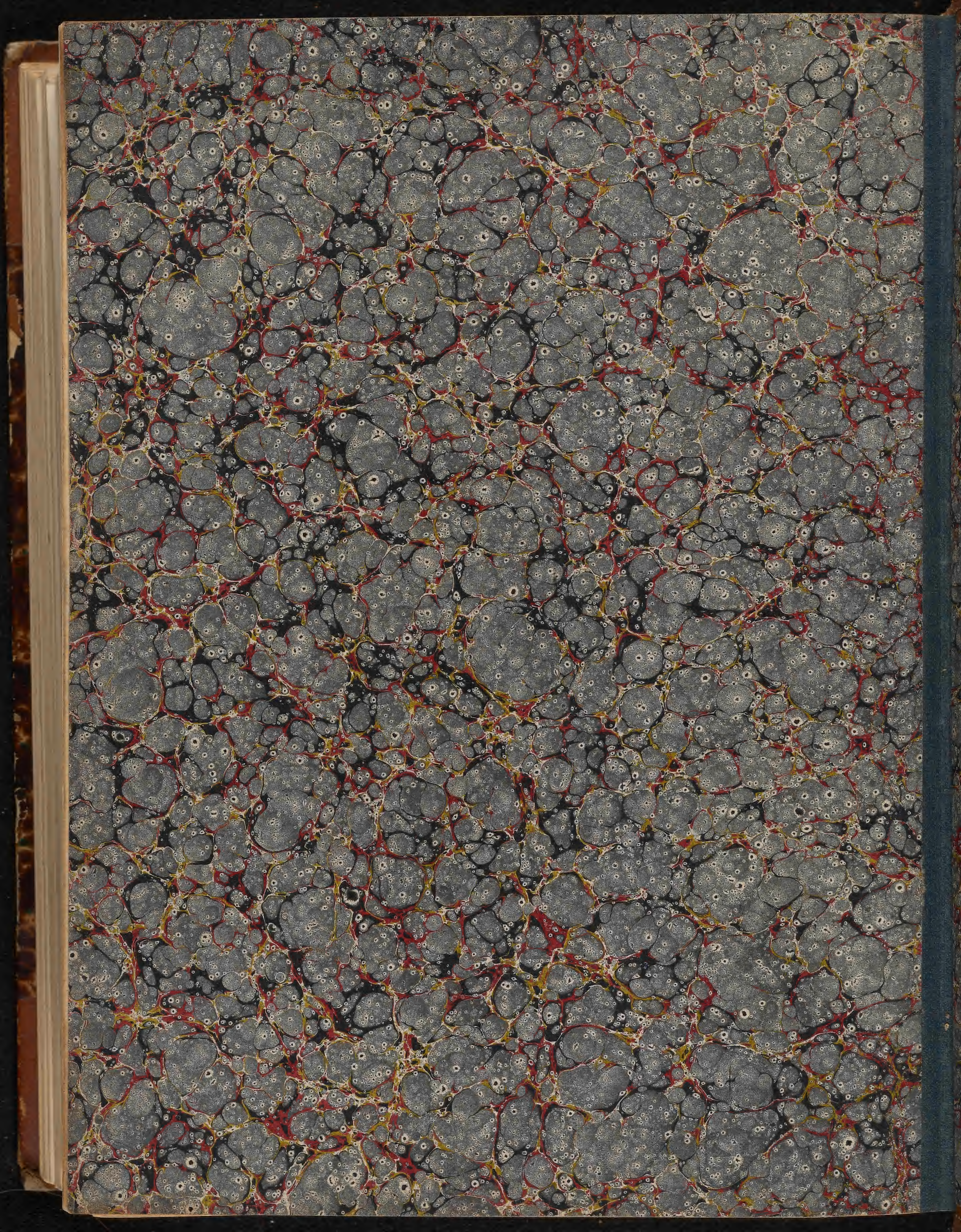
- Chlorophonia
longipennis, 82, tab. xli., fig. 2.
occipitalis, 11, 83, 84, 135, tab. xlii.
pretii, 84.
viridis, 81, 84.
- Cichlopsis
leucogonys, 37, tab. xix.
- Cinclocerthia
gutturialis, 23, tab. xii.
macrorhyncha, 21, tab. xi.
ruficauda, 19, tab. x.
- Coccythraustes
viridis, 167.
- Colymbus
cayennensis, 190.
dominicus, 190.
- Conurus
hoffmanni, 161, tab. lxxxi.
- Corethrura
albigularis, 109.
hypoleucos, 111.
leucopyrrha, 111.
melanophæa, 107.
rubra, 31.
- Cotinga
purpurea, 9.
tschudi, 172.
- Crex
facialis, 155.
lateralis, 107.
schomburgki, 133.
- Crypturus
boucardi, 91, 93, tab. xlv.
meserythrus, 93, tab. xlvii.
pileatus, 93.
sallæi, 89, 91, tab. xlv.
- Cyphorhinus
cantans, 41.
lawrencii, 41, 43, tab. xxi.
modulator, 41, 43.
musicus, 41, 43.
phæcephalus, 41, 43, tab. xxii.
thoracicus, 43.
- Dendrocolaptes
rubiginosus, 71.
major, 71, 72.
- Dendrocopus
major, 71.
- Diglossa
baritula, 11.
plumbea, 11.
- Ephialtes
nudipes, 102.
- Erismatura
leucogenys, 200.
- Euphonia
frontalis, 81.
hirundinacea, 61.
longipennis, 82, 84.
occipitalis, 83.
- Falco
albicollis, 122.
gularis, 177.
insectivorus, 174.
lacernulatus, 98, 122.
magnirostris, 173.
melanops, 122.
- Falco
nisus, 33, 74.
pectoralis, 170.
plagiatus, 179.
pæcilonotus, 122.
poliogaster, 137.
- Figulus
albogularis, 7.
- Formicarius
erythropterus, 18.
nigromaculatus, 17.
trivittatus, 18.
- Formicivora
rufatra, 159.
strigilata, 159, tab. lxxx.
- Fringilla
cayennensis, 168.
viridis, 168.
- Fulica
americana, 119, 120.
ardesiaca, 113, 116, 120, tab. lvii.
armillata, 115, 116, 117, 118,
 120, tab. lviii.
chilensis, 113, 115, 116.
chloropoides, 117, 118, 119.
cornuta, 113, 120.
frontata, 115, 116.
gallinuloides, 115, 116, 117.
gigantea, 113, 120.
leucoptera, 116, 118, 119, 120,
 tab. lx.
leucopyga, 117, 120, tab. lix.
rufifrons, 117.
stricklandi, 119, 120.
- Farnarius
cinnamomeus, 8.
figulus, 7.
griseiceps, 8.
leucopus, 8.
longirostris, 8.
melanotis, 7.
minor, 8.
rufus, 7.
torridus, 7, 8, tab. iv.
- Gallinula
albifrons, 107.
lateralis, 107.
- Gallinago
frenata, 194, 196.
gigantea, 194, 195, 196.
granadensis, 195.
imperialis, 193, 194, 196, tab. xcyii.
jamesoni, 193, 194, 196.
magellanica, 196.
major, 195, 196.
nobilis, 194, 195, 196, tab. xcvi.
paludosa, 196.
paraguayæ, 194, 196.
scolopacina, 196.
stricklandi, 193, 194, 196.
undulata, 194, 196.
wilsoni, 194, 196.
- Geotrygon
albifacies, 77, 78, 123, 124, tab.
 xxxix.
albiventris, 78.
bourcierii, 79, tab. xl.
chiriquensis, 77, 123, 124, tab. lxii.
- Geotrygon
frenata, 79.
linearis, 79.
melancholica, 79.
montana, 78, 79.
veraguensis, 78.
violacea, 79.
- Herminierus
guadeloupensis, 19.
infaustus, 19.
- Hylactes
castaneus, 57, 58, tab. xxix.
megapodius, 58.
tarnii, 57, 58.
- Hyphantès
abeillæi, 187.
- Icterus
abeillæi, 187, 188, tab. xciv.
baltimore, 187, 188.
bullockii, 187, 188.
cucullatus, 47.
pustulatus, 47, tab. xxiv.
mentalis, 48.
- Lanius
atricapillus, 64.
aurantius, 61, 64, tab. xxxi.
leucothorax, 61, 63, 64, tab. xxxii.
versicolor, 64.
- Laniocera
sanguinaria, 6.
- Lanius
chrysophrys, 13.
- Laterallus
hypoleucus, 111.
- Lathria
cineracea, 6.
cinerea, 6.
fuscocinerea, 6.
- Leptonyx
macropus, 58.
tarnii, 58.
- Leptoptila
albifrons, 77.
- Leucopternis
albicollis, 122.
ghiesbreghtii, 121.
kaupii, 75.
kuhli, 75.
lacernulatus, 122.
melanops, 122.
palliata, 97, 122, tab. xlix.
polionota, 97.
princeps, 122.
scotoptera, 98, 122.
semitlumbea, 121, 122, tab. lxi.
superciliaris, 75, 122, tab. xxxviii.
- Lipaugus
cineraceus, 2, 3, 6.
fusco-cinereus, 6.
holerythrus, 6.
hypopyrrhus, 3, 5, 6.
lateralis, 5, 6.
plumbeus, 6.
rufescens, 5, 6, tab. iii.
sibilatrix, 6.
simplex, 6.
subalaris, 3, 6, tab. ii.
unirufus, 1, 3, 6, tab. i.

- Lycornis
cornuta, 120.
 Lysca
ardesiacea, 113.
 Megalonyx
ruficeps, 58.
rufus, 58.
 Melanotis
cærulescens, 85.
hypoleucus, 85, tab. xliii.
 Melozone
biarcuata, 129.
leucotis, 127.
rubricata, 127.
 Merganetta
armata, 199, 200.
chilensis, 200.
columbiana, 199, 200.
leucogenys, 199, 200.
turneri, 199, 200, tab. c.
 Merops
rufus, 7.
 Merula
tristis, 145.
 Microchera
albi-coronata, 63.
 Micrastur
dynastes, 137, 138.
 Micropygia
schomburgki, 133.
 Mimus
gracilis, 50.
 Motacilla
guianensis, 185.
 Muscicapa
cinerascens, 6.
elizabeth, 55, 56.
plumbea, 6.
rustica, 6.
sibilatrix, 6.
simplex, 6.
vociferans, 6.
 Muscipeta
armillata, 53.
ralloides, 53.
 Myiadestes
armillatus, 56.
elizabethæ, 55, tab. xxviii.
genibarbis, 56.
griseiventer, 53.
leucotis, 37.
melanops, 50, 54.
obscurus, 49, 50, 51, 54, tab. xxv.
ralloides, 53, 54, tab. xxvii.
solitarius, 56.
townsendi, 54.
unicolor, 49, 51, 54, tab. xxvi.
venezuelensis, 53.
 Myiarchus
rusticus, 6.
 Myiocybister
ochrata, 37.
 Myiothera
nigromaculata, 17.
rufa, 159.
strigilata, 159.
 Mystalus
striolatus, 153.
 Neomorphus
geoffroyi, 131.
rufipennis, 131.
salvini, 131.
 Nisus
chionogaster, 27.
magnirostris, 173, 177.
pileatus, 170.
sexfasciatus, 137.
striatus, 33, 34.
variatus, 34, 137, 138, 170.
 Nothocercus
sallæi, 89.
 Nyctibius
æthereus, 40.
bracteatus, 39, 40, tab. xx.
grandis, 40.
jamaicensis, 40.
leucopterus, 40.
longicaudatus, 40.
pectoralis, 40.
rufus, 39.
urutao, 40.
 Oedienemus
americanus, 60.
bistriatus, 59, 60.
superciliaris, 59, 60, tab. xxx.
vocifer, 59, 60.
 Opetiorhynchus
rufus, 7.
ruficaudus, 7.
 Oriolus
baltimore, 188.
costolotl, 187.
 Ortygometra
lateralis, 107.
schomburgki, 133.
 Oxyrhamphus
flammiceps, 131.
frater, 131, tab. lxvi.
 Panterpe
insignis, 63.
 Pendulinus
abeillii, 187.
 Peristera
albifacies, 77, 124.
erythropareia, 79.
mexicana, 77, 124.
 Phlogopsis
erythroptera, 18.
macleannanni, 17, tab. ix.
nigromaculata, 17.
trivittata, 18.
 Phalaris
gigantea, 120.
 Picolaptes
cinnamomeus, 8.
 Pipilo
fuscus, 130.
 Pitylus
brasiliensis, 168.
canadensis, 167.
flavo-cinereus, 168.
humeralis, 167, 168, tab. lxxxiv.
personatus, 167.
poliogaster, 61, 168.
viridis, 167.
 Platyurus
rubecula, 43.
 Podiceps
albicollis, 190.
americanus, 190.
bicornis, 190.
caliparceus, 190.
chilensis, 190.
cristatus, 189.
dominicus, 190.
leucopterus, 190.
major, 190.
micropterus, 189.
rollandi, 190.
 Pogonothraupis
atricapilla, 64.
 Porzana
albigularis, 109, 111, tab. lv.
castaneiceps, 155, tab. lxxviii.
cayennensis, 31, 155.
concolor, 155.
erythropis, 134.
fasciata, 105.
hauswelli, 105, 111, tab. liii.
leucopyrrha, 111, tab. lvi.
melanophæa, 107, 111, tab. liv.
noveboracensis, 133.
rubra, 31, tab. xvi.
 Procnias
cucullata, 172.
melanocephalus, 172.
 Psarocolius
pustulatus, 47, 48.
 Pteroptochus
castaneus, 57.
tarnii, 58.
 Ptilogonys
caudatus, 11, tab. vi.
cinereus, 11, 12.
griseiventer, 53.
leucotis, 53.
townsendi, 54.
 Pyrrhura
versicolor, 64.
 Pyrgisoma
biarcuatum, 127, 129, 130.
cabanisi, 127, 129, 130, tab. lxv.,
 fig. 1.
kieneri, 127, 129, 130, tab. lxv.,
 fig. 2.
leucote, 127, 130, tab. lxiv., fig. 2.
rubricatum, 127, 130, tab. lxiv.,
 fig. 1.
xanthusi, 127.
 Pyrgita
biarcuata, 130.
 Pyrrhorhynchus
arcuatus, 171.
 Querula
fusco-cinerea, 6.
 Querquedula
puna, 197, tab. xcix.
versicolor, 197.
 Rallus
aquaticus, 166.
antarcticus, 163, 165, 166, tab.
 lxxxii.
leucopyrrhus, 111.

- Rallus*
melanophaius, 107.
rufopennis, 163.
semiplumbeus, 165, 166, tab. lxxxiii.
uliginosus, 163.
virginianus, 163, 166.
Raphipterus
chilensis, 200.
Rupicola
peruviana, 29, 30.
crocea, 29.
sanguinolenta, 29, 30, tab. xv.
saturata, 29, 30.
Rupornis
gularis, 177.
Ramphocinclus
gutturalis, 23.
tremulus, 19.
Sarochalinus
rufogularis, 43.
Scolopax
brasiliensis, 196.
frenata, 196.
gigantea, 196.
lacunosa, 196.
magellanicus, 196.
meridionalis, 196.
paludosa, 196.
paraguayæ, 196.
saturata, 193.
spectabilis, 196.
undulata, 196.
wilsoni, 196.
Scops
asio, 99, 102.
atricapilla, 102.
barbarus, 99, 101, 102, tab. li.
brasilianus, 102.
choliba, 102.
crucigera, 102.
flammeola, 99, 101, 102, tab. l.
kennicotti, 102.
lophotes, 102.
maccalli, 102.
nudipes, 101, 102.
portoricensis, 102.
trichopsis, 99, 102.
ustus, 102.
Sparvius
bicolor, 138.
guttatus, 34, 169.
Stenorhynchus
ruficaudus, 19.
Sylbeocyclus
minor, 100.
dominicus, 190.
Tachyphonus
coronatus, 68.
cristatellus, 68.
Tachyphonus
cristatus, 68.
delatirii, 67, 68, tab. xxxiv.
leucocampter, 65.
luctuosus, 68.
melaleucus, 68.
phæniceus, 65, 68, tab. xxxiii.
rufiventris, 68.
rubrifrons, 68.
saucius, 65.
surinamus, 68.
versicolor, 64.
xanthopygius, 68.
Tanagra
atricapilla, 64.
diaconus, 61.
rubricata, 127.
Tetrao
falklandica, 158.
malouina, 158.
Thripadectes
flammatulus, 185, tab. xciii.
Thryothorus
carinatus, 43.
modulator, 43.
Thryorhina
schomburgki, 133, tab. lxvii.
Tigrisoma
brasiliense, 95, 183, 184.
cabanisi, 95, 184, tab. xlviii.
fasciatum, 183, 184, tab. xcii.
tigrinum, 95, 184.
Tinamus
cinnamomeus, 89.
delatirii, 89.
major, 87.
meserythrus, 93.
pileatus, 93.
robustus, 87, tab. xlv.
sallæi, 89, 91.
Triglyphidia
callophrys, 84, 135.
Troglodytes
aedon, 46.
brunneicollis, 46, tab. xxiii, fig. 2.
europæus, 46.
furvus, 45.
hyemalis, 46.
solstitialis, 45, tab. xxiii, fig. 1.
Turdampelis
rufococcyæ, 37.
lanioides, 37.
Turdus
albicollis, 141, 145, 147, tab. lxxi.
albiventris, 141, 143, 147, 148, tab. lxxiv.
amaurochalinus, 143.
arada, 43.
Turdus
assimilis, 145.
atrosericeus, 151.
badius, 7.
cantans, 43.
chiguanco, 139.
crotopezus, 141, 143, 145, tab. lxxiii.
ephippialis, 147, 148.
figulus, 7.
fuscater, 139.
fumigatus, 147.
gigas, 139, tab. lxx.
grayii, 147.
gymnophthalmus, 151, 152, tab. lxxvi.
gymnopsis, 151.
humilis, 147.
ignobilis, 143.
jamaicensis, 149, 150.
leucogonys, 37.
leucauchen, 145.
leucomelas, 141, 143, 145, 146, 147, tab. lxxii.
musicus, 43.
nigrescens, 139.
nudigenis, 151.
olivaceus, 143.
olivater, 151.
phæopygus, 149, 150, tab. lxxv.
rufiventris, 143, 147.
tristis, 145.
Tyrannus
calcaratus, 6.
Vireolanius
chlorogaster, 16.
eximius, 16.
icterophrys, 16.
melitophrys, 13, 16, tab. vii.
pulchellus, 15, 16, tab. viii.
Xanthornus
abeillii, 187.
bullockii, 188.
Xiphocolaptes
albicollis, 69, 72.
emigrans, 69, 72, tab. xxxv.
major, 71, tab. xxxvi.
procerus, 69, 72.
promeropirhynchus, 72.
Xipholena
atropurpurea, 9, 10, tab. v.
lamellipennis, 10.
pompadora, 9.
purpurea, 9.
Xylocotta
jamesoni, 196.
Zonotrichia
pileata, 33.

FINIS.

Track





SMITHSONIAN INSTITUTION LIBRARIES



3 9088 01570 3614